DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

	2A13
	Revision 45
	PIPER
PA-28-140	PA-28-151
PA-28-150	PA-28-161
PA-28-160	PA-28-181
PA-28-180	PA-28R-201
PA-28-235	PA-28R-201T
PA-28S-160	PA-28-236
PA-28S-180	PA-28RT-201
PA-28R-180	PA-28RT-201T
PA-28R-200	PA-28-201T
	December 12, 2001

TYPE CERTIFICATE DATA SHEET NO. 2A13

This data sheet, which is a part of Type Certificate 2A13, prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder The New Piper Aircraft, Inc.

2926 Piper Drive

Vero Beach, Florida 32960

<u>I - Model PA-28-160 (Cherokee), 4 PCLM (Normal Category), Approved October 31, 1960, for S/N 28-03; 28-1 through 28-4377; and 28-1760A.</u>

Engine Lycoming O-320-B2B or O-320-D2A with carburetor setting 10-3678-32

<u>Fuel</u> 91/96 minimum grade aviation gasoline

Engine Limits For all operations, 2700 r.p.m. (160 hp)

Propeller and Propeller Limits Sensenich M74DM or 74DM6 on S/N 28-1 through 28-1760, and 28-1760A.

Sensenich M74DMS or 74D6S5 on S/N 28-1761 through 28-4377. Static r.p.m. at maximum permission throttle setting not over 2425 r.p.m.,

not under 2325 r.p.m.

No additional tolerance permitted. Diameter: Not over 74", not under 72.5".

<u>Propeller Spinner</u> Piper P/N 14422-00 on S/N 28-1 through 28-1760, and 28-1760A.

Piper P/N 63760-04 or P/N 65805-00 on S/N 28-1761 through 28-4377.

See NOTE 11.

Airspeed Limits Never exceed 171 mph (148 knots) CAS

Maximum structural cruising140 mph(121 knots)CASManeuvering129 mph(112 knots)CASFlaps Extended115 mph(100 knots)CAS

Page No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Revision No.	45	43	43	43	44	43	44	43	44	43	44	44	44	43	43	44	44	44
Page No.	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Revision No.	43	45	45	43	44	43	44	43	44	44	44	43	44	43	44	44	43	45
Page No.	37	38	39	40	41	42												
Revision No.	45	43	45	44	44	43												

2A13 Page 2 of 42

Center of Gravity Range (+84.0) to (+95.9) at 1650 lb. or less

(+85.9) to (+95.9) at 1975 lb. (+89.2) to (+95.9) at 2200 lb. Straight line variation between points given.

Empty Weight C. G. Range None

Maximum Weight 2200 lb.

No. of Seats 4 (2 at +85.5, 2 at +118.1)

Maximum Baggage 125 lb. at (+142.8) on S/N 28-1 through 28-1760, and 28-1760A. See NOTE 8.

200 lb. at (+142.8) on S/N 28-1761 through 28-4377.

Fuel Capacity 50 gallons at (+95) (2 wing tanks)

See NOTE 1 for data on system fuel.

Oil Capacity 8 quarts at (+32.5), 6 quarts usable

See NOTE 1 for data on system oil.

<u>Control Surface Movements</u> Wing flaps $(\pm 2^{\circ})$ Up 0° Down 40°

Ailerons 30° 15° $(\pm 2^{\circ})$ Up Down Rudder $(\pm 2^{\circ})$ 27° Right 27° Left 2° Stabilator $(\pm 2^{\circ})$ 18° Up Down Stabilator Tab $(\pm 1^{\circ})$ 3° Down 12° Up

Nose Wheel Travel $(\pm 1^{\circ})$ Left 30° Right 30°

(Effective on S/N 28-1 through 28-3377, and 28-1760A)

($\pm 1^{\circ}$) Left 22° Right 22° (Effective S/N 28-3378 through 28-4377)

Manufacturer's Serial Nos. 28-03; 28-1 through 28-4377; and 28-1760A.

II - Model PA-28-150 (Cherokee), 4 PCLM (Normal Category), Approved June 2, 1961, for S/N 28-03; 28-1 through 28-4377; and 28-1760A.

Engine Lycoming O-320-A2B or O-320-E2A with carburetor setting 10-3678-32

<u>Fuel</u> 80/87 minimum grade aviation gasoline

Engine Limits For all operations, 2700 r.p.m. (150 hp)

Propeller and Propeller Limits Sensenich M74DM or 74DM6 on S/N 28-1 through 28-1760, and 28-1760A.

Sensenich M74DMS or 74DM6S5 on S/N 28-1761 through 28-4377. Static r.p.m. at maximum permissible throttle setting not over 2375 r.p.m.,

not under 2275 r.p.m.

No additional tolerance permitted. Diameter: Not over 74", not under 72.5".

Propeller Spinner Piper P/N 14422-00 on S/N 28-1 through 28-1760, and 28-1760A.

Piper P/N 63760-04 or 65805-00 on S/N 28-1761 through 28-4377.

See NOTE 11.

Airspeed Limits Never exceed 171 mph (148 knots) CAS

Maximum structural cruising 140 mph (121 knots) CAS Maneuvering 129 mph (112 knots) CAS Flaps Extended 115 mph (100 knots) CAS Page 3 of 42 2A13

Center of Gravity Range (+84.0) to (+95.9) at 1650 lb. or less

(+85.9) to (+95.9) at 1975 lb. (+88.4) to (+95.9) at 2150 lb. Straight line variation between points given.

Empty Wt. C. G. Range None

Maximum Weight 2150 lb.

No. of Seats 4 (2 at +85.5, 2 at +118.1)

Maximum Baggage 125 lb. at (+142.8) on S/N 28-1 through 28-1760, and 28-1760A. See NOTE 8.

200 lb. at (+142.8) on S/N 28-1761 through 28-4377.

Fuel Capacity 50 gallons at (+95) (2 wing tanks)

See NOTE 1 for data on system fuel.

Oil Capacity 8 quarts at (+32.5) (6 quarts usable)

See NOTE 1 for data on system oil.

<u>Control Surface Movements</u> Wing flaps $(\pm 2^{\circ})$ Up 0° Down 40°

Ailerons 30° Down 15° $(\pm 2^{\circ})$ Up Rudder $(\pm 2^{\circ})$ 27° Right 27° Left Stabilator 18° 2° $(\pm 1^{\circ})$ Up Down Stabilator Tab (± 1°) 3° Down 12° Up

<u>Nose Wheel Travel</u> $(\pm 2^{\circ})$ Left 30° Right 30°

(Effective on S/N 28-03; 28-1 through 28-3377; and 28-1760A)

(± 2°) Left 22° Right 22° (Effective on S/N 28-3378 through 28-4377)

Manufacturer's Serial Nos. 28-03; 28-1 through 28-4377; and 28-1760A.

<u>III - Model PA-28-180 (Cherokee), 4 PCLM (Normal Category), Approved August 3, 1962; 2 PCLM (Utility Category), Approved December 6, 1966, for S/N 28-03; 28-671 through 28-5859; and 28-7105001 through 28-7205318.</u>

Engine Lycoming O-360-A3A or 0-360-A4A with carburetor setting 10-3878 or 10-4164-1

<u>Fuel</u> 91/96 minimum grade aviation gasoline

Engine Limits S/N 28-671 through 28-1760, and 28-1760A (except S/N 28-1571 and S/N 28-1573)

(See NOTE 4):

Maximum permissible takeoff, 2475 r.p.m. For all other operations, 2700 r.p.m. (180 hp)

S/N 28-1571; 28-1573; 28-1761 through 28-5859; and 28-7105001 through

28-7205318:

For all operations, 2700 r.p.m. (180 hp)

Propeller and Propeller Limits Sensenich M76EMM or 76EM8 on S/N 28-671 through 28-1760, and 28-1760A (except

S/N 28-1571 and S/N 28-1573).

Sensenich M76EMMS or 76EM8S5 on S/N 28-1571, 28-1573; 28-1761 through

28-5859; and 28-7105001 through 28-7205318.

Static r.p.m. at maximum permissible throttle setting not over 2450 r.p.m.,

not under 2275 r.p.m.

No additional tolerance permitted.

Diameter: Not over or under 76".

See NOTE 10.

2A13 Page 4 of 42

<u>Propeller Spinner</u> Piper P/N 14422-00 on S/N 28-671 through 28-1760, and 28-1760A.

Piper P/N 63760-04 or 65805-00 on S/N 28-1761 through 28-5859; and 28-7105001 through 28-7205318.

See NOTE 11.

Airspeed Limits

Never exceed	171 mph	(148 knots)	CAS
Maximum structural cruising	140 mph	(121 knots)	CAS
Maneuvering	129 mph	(112 knots)	CAS
Flaps Extended	115 mph	(100 knots)	CAS

Center of Gravity Range

<u>Utility Category</u> (See NOTE 9)

(+84.0)	to	(+86.5)	at	1650 lb. or less
(+85.8)	to	(+86.5)	at	1950 lb.

Normal Category (See NOTE 15)

(S/N 28-671 through 28-5859)

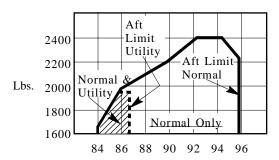
(+84.0)	to	(+95.9)	at	1650 lb. or less
(+85.9)	to	(+95.9)	at	1975 lb.
(+89.2)	to	(+959)	at	2200 lb.
(+92.1)	to	(+94.5)	at	2400 lb.

Normal Category

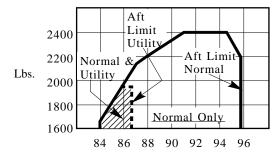
(S/N 28-7105001 through 28-7205318)

(+84.0)	to	(+95.9)	at	1650 lb. or less
(+87.0)	to	(+95.9)	at	2150 lb.
(+87.8)	to	(+95.9)	at	2200 lb.
(+91.0)	to	(+94.5)	at	2400 lb.

Straight Line Variation Between Points Given



Fuselage Station - Inches (S/N 28-671 thru 28-5859)



Fuselage Station - Inches (S/N 28-7105001 thru 28-7205318)

Page 5 of 42 2A13

Maximum Weight Normal Category: 2400 lb.

Utility Category: 1950 lb.

No. of Seats Normal Category: 4 (2 at +85.5, 2 at +118.1)

Utility Category: 2 (2 at +85.5)

Maximum Baggage Eligible Normal Category Only:

125 lb. at (+142.8) on S/N 28-671 through 28-1760, and 28-1760A. See NOTE 8.

200 lb. at (+142.8) on S/N 28-1761 through 28-5859, and 28-7105001 through 28-7205318.

Fuel Capacity 50 gallons at (+95) (2 wing tanks)

See NOTE 1 for data on system fuel.

Oil Capacity 8 quarts at (+32.5) (6 quarts usable)

See NOTE 1 for data on system oil.

<u>Control Surface Movements</u> Wing flaps $(\pm 2^{\circ})$ Up 0° Down 40°

 $(\pm 2^{\circ})$ Ailerons Up 30° Down 15° Rudder $(\pm 2^{\circ})$ 27° 27° Left Right $(\pm~1^{\circ})$ Stabilator 18° 2° Up Down Stabilator Tab 3° 12° $(\pm 1^{\circ})$ Down Up

Nose Wheel Travel (± 2°) Left 30° Right 30°

(Effective on S/N 28-671 through 28-3377) $(\pm 2^{\circ})$ Left 22° Right 22°

(Effective on S/N 28-3378 through 28-5859, and 28-7105001 through 28-7205318)

Manufacturer's Serial Nos. 28-03; 28-671 through 28-5859; and 28-7105001 through 28-7205318.

The manufacturer is authorized to issue airworthiness certificates for airplane serial

numbers:

28-4704 28-4745 28-4754 28-4763 28-4776 28-4826 28-4791 28-4795 28-4834 28-4859 28-4875 28-4879 28-4891 28-4907 28-4919 28-4922 28-4935 28-4945 28-4946 28-4947 28-4955 28-4959 28-4961 27-4964 28-4967 28-4968 28-4971 28-4975 28-4977 28-4985 28-4995 28-4999 28-5004 28-5007 28-5015 28-5017 28-5018 28-5019 28-5020 28-5023 28-5027 28-5028 28-5026 28-5031 28-5039 28-5041 28-5046 28-5051 28-5053 28-5057 28-5062 28-5063 28-5060 28-5061 28-5064

28-5066 through 28-5859, and 28-7105001 through 28-7205318 under the delegation

option provisions of FAR 21. See NOTE 17 and 20.

IV - Model PA-28S-160 (Cherokee), 4 PCSM (Normal Category), Approved February 25, 1963, for S/N 28-1 through 28-1760; and S/N 28-1760A.

Engine Lycoming O-320-D2A with carburetor setting 10-3678-32 (See NOTE 18)

<u>Fuel</u> 100/130 minimum grade aviation gasoline

Engine Limits For all operations, 2700 r.p.m. (160 hp)

Propeller and Propeller Limits McCauley 1A175-GM

Static r.p.m. at maximum permissible throttle setting not over 2360 r.p.m.,

not under 2260 r.p.m.

No additional tolerance permitted. Diameter: Not over 79", not under 78".

2A13 Page 6 of 42

<u>Propeller Spinner</u> Piper P/N 14422-00 spinner required.

Airspeed Limits Never exceed 153 mph (133 knots) CAS Maximum structural cruising 140 mph (121 knots) CAS Maneuvering 129 mph (112 knots) **CAS** Flaps Extended 115 mph (100 knots) **CAS**

1850 lb. or less Center of Gravity (+85.1)(+93.5)to at 2100 lb. (+87.0)(+93.5)at to 2140 lb. (+87.9)(+93.5)at to

Straight line variation between points given.

Empty Weight C. G. Range None

Maximum Weight 2140 lb.

No. of Seats 4 (2 at +85.5, 2 at +118.1)

Maximum Baggage 125 lb. at (+142.8)

Fuel Capacity 50 gallons at (+95) (2 wing tanks)

See NOTE 1 for data on system fuel.

Oil Capacity 8 quarts at (+32.5) (6 quarts usable)

See NOTE 1 for data on system oil.

Ailerons (±2°) Up 30° Down 15° Rudder $(\pm 2^{\circ})$ Left 27° Right 27° 2° Stabilator $(\pm 1^{\circ})$ Up 18° Down 3° 12° Stabilator Tab $(\pm 1^{\circ})$ Up Down

Manufacturer's Serial Nos. 28-03; 28-1 through 28-1760; and 28-1760A.

V - Model PA-28S-180 (Cherokee), 4 PCSM (Normal Category), Approved May 10, 1963, for S/N 28-671 through 28-5859, and 28-7105001 through 28-7105234.

Engine Lycoming O-360-A3A or 0-360-A4A with carburetor setting 10-4164-1

See NOTE 19.

Fuel 100/130 minimum grade aviation gasoline

Engine Limits S/N 28-671 through 28-1760, and 28-1760A (except S/N 28-1571 and S/N 28-1573):

Maximum permissible takeoff, 2350 r.p.m. For all other operations, 2700 r.p.m. (180 hp)

See NOTE 4.

S/N 28-1571; 28-1573; 28-1761 through 28-5859; and 28-7105001 through 28-7105234:

For all operations, 2700 r.p.m. (180 hp)

Propeller and Propeller Limits McCauley 1A200-FA8248 on S/N 28-671 to 28-1760, and 28-1760A.

McCauley 1A200-DFA8248 on S/N 28-1761 through 28-5859, and 28-7105001 through

28-7105234.

Static r.p.m. at maximum permissible throttle setting not over 2190 r.p.m.,

not under 2140 r.p.m.

No additional tolerance permitted. Diameter: Not over 82", not under 81".

Page 7 of 42 2A13

Propeller Spinner	Spinner require Piper P/N 1442 Piper P/N 6376 through 28	2-00 on 0-04 or 0	65805-00				1760A. 5859, and 28-7105001
Airspeed Limits	Never exceed Maximum strue Maneuvering Flaps Extended		uising	140 129	mph mph mph mph	(133 knots) (121 knots) (112 knots) (100 knots)	CAS CAS CAS CAS
Center of Gravity	(+85.1) to (+87.0) to (+89.8) to Straight line va	(+92.5) (+92.5) (+92.5) riation be	at 21 at 22	50 lb. o 00 lb. 22 lb. ints giv			
Empty Weight C. G. Range	None						
Maximum Weight	2222 lb.						
No. of Seats	4 (2 at +85.5, 2 at +118.1)						
Maximum Baggage	125 lb. at (+142	2.8)					
Fuel Capacity	50 gallons at (+ See NOTE 1 fo						
Oil Capacity	8 quarts at (+3) See NOTE 1 fo						
Control Surface Movements	Wing flaps Ailerons Rudder Stabilator Stabilator Tab	(±2°) (±2°) (±2°) (±1°) (±1°)	Up Up Left Up Up	0° 30° 27° 18° 3°	Down Down Right Down Down	15° 27° 2°	
Manufacturer's Serial Nos.	manufacturer is 28-4704 28-4791 28-4791 28-4875 28-4922 28-4955 28-4968 28-4968			e airwo 28 28 28 28 22 23 23			4. See NOTE 3. The or airplane serial numbers:

28-4995

28-5017

28-5026

28-5041

28-5060

28-4999

28-5018

28-5027

28-5046

28-5061

28-5004

28-5019

28-5028

28-5051

28-5062

28-5063 28-5066 through 28-5859, and 28-7105001 through 28-7105234 under the delegation option provisions of FAR 21. See NOTE 17 and 20.

28-5007

28-5020

28-5031

28-5053

28-5015

28-5023

28-5039

28-5057

28-5064

2A13 Page 8 of 42

<u>VI - Model PA-28-235 (Cherokee Pathfinder), 4 PCLM (Normal Category), Approved July 15, 1963, for S/N 28-10001 through 28-7110001 through 28-7210023.</u>

Engine Lycoming O-540-B2B5, O-540-B1B5, or O-540-B4B5 with carburetor setting 10-4404,

10-5042, or 10-5054. (Baffle P/N 68759 required with 10-5054 setting.)

<u>Fuel</u> 80/87 minimum grade aviation gasoline

Engine Limits For all operations, 2575 r.p.m. (235 hp)

Propeller and Propeller Limits McCauley 1P235PFA80

Static r.p.m. at maximum permissible throttle setting not over 2300 r.p.m.,

not under 2125 r.p.m.

No additional tolerance permitted. Diameter: Not over 80", not under 78.5".

or

Hartzell HC-C2YK-1/8468A-4 or HC-C2YK-1()F/F8468A-4

Pitch: High $27^{\circ} \pm 2^{\circ}$, Low $13.5^{\circ} \pm .2^{\circ}$ at 30" station.

Diameter: Not over 80", not under 80". Governor assembly: Hartzell F-4-3 () or F-4-13

See NOTE 21.

or

Approved for Use with O-540-B4B5 Engine Only:

Sensenich M80BMM or 80BM8

Pitch from 69" to 71".

Static r.p.m. at maximum permissible throttle setting not over 2300 r.p.m.,

not under 2150 r.p.m.

No additional tolerances permitted. Diameter: Not over 80", not under 78.5".

<u>Propeller Spinner</u> Piper P/N 65209-00 or P/N 63760-03 with fixed pitch propeller. Spinner required.

Piper P/N 65435-0 or P/N 68713 or P/N 66785 spinner tip and P/N 66786 spinner shell

or P/N 67790-0 spinner, P/N 67791-0 bulkhead, P/N 67793-0 bulkhead and

P/N 99499-0 plate. Two each P/N 67794-0 cuff, or Kit 760 452V with constant speed

propeller. See NOTE 14.

Airspeed Limits Never exceed 197 mph (171 knots) CAS

Maximum structural cruising156 mph(136 knots)CASManeuvering138 mph(120 knots)CASFlaps Extended115 mph(100 knots)CAS

Center of Gravity Range S/N 28-10001 through 28-11378 (See NOTE 16):

(+81.5) to (+93.5) at 2100 lb. or less (+91.5) to (+93.5) at 2900 lb.

S/N 28-7110001 through 28-7210023:

(+85.1) to (+93.5) at 2100 lb. or less (+86.0) to (+93.5) at 2600 lb. (+91.5) to (+93.5) at 2900 lb. Straight line variation between points given.

Empty Weight C. G. Range None

Maximum Weight 2900 lb.

No. of Seats 4 (2 at +85.5, 2 at +118.1)

Maximum Baggage 200 lb. at (+142.8)

Page 9 of 42 2A13

Fuel Capacity 84 gallons at (+95) (50 gallons in 2 wing tanks, 34 gallons in 2 tip tanks).

See NOTE 1 for data on system fuel.

Oil Capacity 12 quarts at (+34.1)(9 ¼ quarts usable)

See NOTE 1 for data on system oil.

<u>Control Surface Movements</u> Wing flaps $(\pm 2^{\circ})$ Up 0° Down 40°

Ailerons $(\pm 2^{\circ})$ Up 30° Down 15° Rudder Left 27° Right 27° $(+2^{\circ})$ Stabilator $(\pm 1^{\circ})$ Down 2° Up 18° Stabilator Tab $(\pm 1^{\circ})$ Up 3° Down 12°

Nose Wheel Travel (±2°) Left 30° Right 30°

(Effective on S/N 28-10001 through 28-11039) (±2°) Left 22° Right 22°

(Effective on S/N 28-11040 through 28-11378, and 28-7110001 through 28-7210023)

Manufacturer's Serial Nos. 28-10001 through 28-11378, and 28-7110001 through 28-7210023. The manufacturer is

authorized to issue airworthiness certificates for airplane serial numbers 28-11063,

 $28-11064,\,28-11070,\,28-11072\; through\; 28-11378,\, and\; 28-7110001\; through\; 28-7210023\; underlined through\; 28-11070,\, 28-11070,\, 28-11072\; through\; 28-11070,\, 28-1$

the delegation option provisions of FAR 21. See NOTE 17 and 20.

VII - Model PA-28-140 (Cherokee Cruiser), 2 PCLM (Utility or Normal Category); 1950 lb. Maximum Weight, Approved February 14, 1964; 2150 lb. Maximum Weight, Approved June 17, 1965; for S/N 28-20001 through 28-26946, and 28-7125001 through 28-7725290.

Engine Lycoming O-320-E2A with carburetor setting 10-3678-32 or O-320-E3D with

carburetor setting 10-5009

Fuel 80/87 minimum grade aviation gasoline

Engine Limits For all operations 2700 r.p.m (150 hp)

Propeller and Propeller Limits For 1950 lb. maximum weight - Normal Category; S/N 28-20001 through 28-20939; or

Utility Category, S/N 28-20001 through 28-26946, and 28-7125001 through 28-7725290:

Sensenich M74DM or 74DM6

Static r.p.m. at maximum permissible throttle setting not over 2425 r.p.m., not under

2150 r.p.m.

No additional tolerance permitted. Diameter: Not over 74", not under 72.5".

For 2150 lb. maximum weight - Normal Category; S/N 28-20940 through 28-26946, and

28-7125001 through 28-7725290:

Sensenich M74DM or 74DM6

Static r.p.m. at maximum permissible throttle setting not over 2425 r.p.m.,

not under 2275 r.p.m.

No additional tolerance permitted. Diameter: Not over 74", not under 72.5".

<u>Propeller Spinner</u> Piper P/N 14422-00.

See NOTE 11.

Airspeed Limits Never exceed 171 mph (148 knots) CAS

Maximum structural cruising140 mph (121 knots)CASManeuvering129 mph (112 knots)CASFlaps Extended115 mph (100 knots)CAS

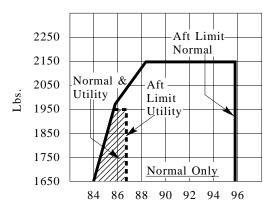
2A13 Page 10 of 42

Center of Gravity Range **Utility Category**

1650 lb. or less (+84.0)(+86.5) at to 1950 lb. (+85.8)(+86.5) at to

Normal Category

(+84.0)to (+95.9) at 1650 lb. or less (+85.9)1975 lb. to (+95.9) at 2150 lb. (+88.4)(+95.9) at to Straight line variation between points given.



Fuselage Station - Inches

Empty Weight C. G. Range

None Maximum Weight

Normal Category: 1950 lb. on S/N 28-20001 through 28-20939 (See NOTE 6). 2150 lb. on S/N 28-20940 through 28-26946, and 28-7125001

through 28-7725290.

Utility Category: 1950 lb. on S/N 28-20001 through 28-26946, and 28-7125001

through 28-7725290.

No. of Seats 2 at (+85.5)

Maximum Baggage Eligible Normal Category Only:

100 lb. at (+117) on S/N 28-20001 through 28-20939 (See NOTE 12).

200 lb. at (+117) on S/N 28-20940 through 28-26946, and 28-7125001 through 28-7725290. 300 lb. at (+117 and +133) on S/N 28-20940 through 28-26946, and 28-7125001 through

28-7725290 (See NOTE 13).

Fuel Capacity 50 gallon at (+95) (2 wing tanks)

See NOTE 1 for data on system fuel.

Oil Capacity 8 quarts at (+32.5) (6 quarts usable)

See NOTE 1 for data on system oil.

Up 0° Down 40° Control Surface Movements Wing flaps $(\pm 2^{\circ})$

Up 30° Ailerons Down 15° $(\pm 2^{\circ})$ Left 27° Right 27° Rudder $(\pm 2^{\circ})$ Up 18° 2° Stabilator Down $(\pm 1^{\circ})$ Stabilator Tab 3° Down 12° (±1°) Up

Right 30° Nose Wheel Travel $(\pm 2^{\circ})$ Left 30°

 $(Effective \ on \ S/N \ 28-20001 \ through \ 28-21845; \ 28-21931 \ through \ 28-21934;$

and 28-7425001 through 28-7725290)

(±2°) Left 22° Right 22°

(Effective on S/N 28-21846 through 28-21930; 28-21935 through 28-26946; and 28-7125001 through 28-7325674)

Page 11 of 42 2A13

Manufacturer's Serial Nos.

28-20001 through 28-26946; and 28-7125001 through 28-7725290. The manufacturer is authorized to issue airworthiness certificates for airplane serial numbers 28-24677, 28-24682, 28-24697, 28-24698, 28-24700, 28-24703, 28-24704, 28-24705, 28-24706, 28-24709, 28-24710, 28-24712, 28-24713, 28-24714, 28-24715 through 28-26946, and 28-7125001 through 28-7725290 under the delegation option provisions of FAR 21. See NOTE 17 and 20.

VIII - Model PA-28-140 (Cherokee Cruiser), 4 PCLM (Normal Category), 2 PCLM (Utility Category), Approved June 17, 1965, for S/N 28-20001 through 28-26946, and 28-7125001 through 28-7725290.

Engine Lycoming O-320-E2A with carburetor setting 10-3678-32 or 10-5009 or O-320-E3D with

carburetor setting 10-5009

Fuel 80/87 minimum grade aviation gasoline

Engine Limits For all operations 2700 r.p.m. (150 hp)

Propeller and Propeller Limits Sensenich M74DM or 74DM6

Static r.p.m. at maximum permissible throttle setting not over 2425 r.p.m., not under

2275 r.p.m.

No additional tolerance permitted. Diameter: Not over 74", not under 72.5".

<u>Propeller Spinner</u> Piper P/N 14422-00.

See NOTE 11.

Airspeed Limits

Never exceed
Maximum structural cruising

140 mph
(121 knots)

CAS

(120 d. (112 knots)

CAS

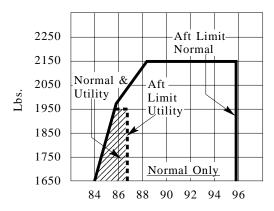
Maneuvering 129 mph (112 knots) CAS Flaps Extended 115 mph (100 knots) CAS

Center of Gravity Range Utility Category

(+84.0) to (+86.5) at 1650 lb. or less (+85.8) to (+86.5) at 1950 lb.

Normal Category

(+84.0) to (+95.9) at 1650 lb. or less (+85.9) to (+95.9) at 1975 lb. (+88.4) to (+95.9) at 2150 lb. Straight line variation between points given.



Fuselage Station - Inches

2A13 Page 12 of 42

Empty Weight C. G. Range None

Maximum Weight Normal Category: 2150 lb.

Utility Category: 1950 lb.

No. of Seats Normal Category: 4 (2 at +85.5, 2 at +117)

Utility Category: 2 (2 at +85.5)

Maximum Baggage Eligible Normal Category only:

100 lb. at (+117) on S/N 28-20001 through 28-20939 (See NOTE 12).

200 lb. at (+117) on S/N 28-20940 through 28-26946; and 28-7125001 through 28-7725290. 300 lb. at (+117 and +133) on S/N 28-20940 through 28-26946; and 28-7125001 through

28-7725290 (See NOTE 13).

Fuel Capacity 50 gallons at (+95) (2 wing tanks)

See NOTE 1 for data on system fuel.

Oil Capacity 8 quarts at (+32.5) (6 quarts usable)

See NOTE 1 for data on system oil.

<u>Control Surface Movements</u> Wing flaps $(\pm 2^{\circ})$ Up 0° Down 40°

Ailerons $(\pm 2^{\circ})$ 30° Down 15° Up Rudder (±2°) 27° Right 27° Left Stabilator 18° Down 2° $(\pm 1^{\circ})$ Up Stabilator Tab (±1°) 3° Down 12° Up

Nose Wheel Travel $(\pm 2^{\circ})$ Left 30° Right 30°

(Effective on S/N 28-20940 through 28-21845; 28-21931 through 28-21934; and

28-7425001 through 28-7725290)

 $(\pm 2^{\circ})$ Left 22° Right 22°

(Effective on S/N 28-21846 through 28-21930; 28-21935 through 28-26946; and

28-7125001 through 28-7325674)

Manufacturer's Serial Nos. 28-20001 through 28-26946, and 28-7125001 through 28-7725290. The manufacturer is

authorized to issue airworthiness certificates for airplane serial numbers 28-24677, 28-24682, 28-24697, 28-24698, 28-24700, 28-24703, 28-24704, 28-24705, 28-24706, 28-24709, 28-24710, 28-24712, 28-24713, 28-24714, 28-24715 through 28-26946, and 28-7125001 through 28-7725290 under the delegation option provisions of FAR 21.

See NOTE 17 and 20.

IX - Model PA-28R-180 (Arrow), 4 PCLM (Normal Category), Approved June 8, 1967, for S/N 28R-30002 through 28R-31270, and 28R-7130001 through 28R-7130013.

Engine Lycoming IO-360-B1E

<u>Injector</u> Bendix type RSA-5ADI Parts List No. 2524297

<u>Fuel</u> 100/130 minimum grade aviation gasoline

Engine limits For all operations, 2700 r.p.m. (180 hp)

Propeller and Propeller Limits Hartzell constant speed Model HC-C2YK-()/7666A-0 or HC-C2YK-1()F/F7666A

Pitch: High $29.0^{\circ} \pm 1^{\circ}$, Low $13.0^{\circ} \pm .2^{\circ}$ at 30" Station.

Diameter: Not over 76", not under 74.5".

Governor Assembly: Hartzell F-2-2 () or F-2-7 () Avoid continuous operation between 2000 - 2200 r.p.m.

Page 13 of 42 2A13

Propeller Spinner	Piper P/N 68713 or P/N 66785 spinner tip and P/N 66786 spinner shell, or P/N 67790-0 spinner, P/N 67791-0 bulkhead, P/N 67793-0 bulkhead, and P/N 99499-0 plate. Two each P/N 67794-0 cuff or Kit 760 410V. See NOTE 11.						
Airspeed Limits	Never exceed Maximum structur Maneuvering Flaps extended Maximum gear ex Maximum gear ret	tension	214 mph 170 mph 134 mph 125 mph 150 mph 125 mph	(186 knots) (148 knots) (116 knots) (109 knots) (130 knots) (109 knots)	CAS CAS CAS CAS CAS		
Center of Gravity Range			lb. oints given.	9 in-lb.)			
Empty Weight C. G. Range	None						
Maximum Weight	2500 lb.						
No. of Seats	4 (2 at +85.5, 2	at +118.1)					
Maximum Baggage	200 lb. at (+142.8))					
Fuel Capacity	50 gallons at (+95) See NOTE 1 for da						
Oil Capacity	8 quarts at (+29.5) See NOTE 1 for da	_	s usable) oil.				
Control Surface Movements	Rudder Stabilator	(±2°) (±2°) (±2°) (±1°) (±1°)	Up 0° Up 30° Left 27° Up 18° Up 3°	Down Down Right Down Down	15° 27° 2°		
Nose Wheel Travel		(±2°)	Left 30°	Right	30°		
Manufacturer's Serial Nos.	28R-30538 28R-30602 28R-30638 28R-30708 28R-30750 28R-30776 28R-30801 28R-30824 28R-30842 28R-30860	thorized to issu 28R-30546 28R-30603 28R-30639 28R-30726 28R-30779 28R-30779 28R-30809 28R-30827 28R-30845 28R-30865 28R-30872 0, and 28R-711	28R-30559 28R-30605 28R-30642 28R-30739 28R-30759 28R-30785 28R-30815 28R-30849 28R-30866 28R-30874	ess certificates 28R-30: 28R-30: 28R-30: 28R-30: 28R-30: 28R-30: 28R-30: 28R-30: 28R-30: 28R-30: 28R-30: 28R-30: 4 28R-30: 4 28R-30: 4 28R-30: 4 28R-30: 5 28R-30: 6 28R-30: 7 28R-30: 8 38R-30: 8 38R-	s for airp 586 624 684 740 760 787 819 835 853 867	lane serial numbers: 28R-30587 28R-30627 28R-30697 28R-30747 28R-30766 28R-30795 28R-30821 28R-30838 28R-30857 28R-30868 28R-30877	

2A13 Page 14 of 42

<u>X - Model PA-28R-200 (Arrow)</u>, 4 PCLM (Normal Category), Approved January 16, 1969, S/N 28R-35001 through 28R-35820 and 28R-7135001 through 28R-7135229.

Engine Lycoming IO-360-C1C

<u>Injector</u> Bendix Type RSA-5AD1, Parts List Number 2524450

<u>Fuel</u> 100/130 minimum grade aviation gasoline

Engine Limits For all operations, 2700 r.p.m. (200 hp)

Propeller and Propeller Limits Hartzell constant speed Model HC-C2YK-1 ()/7666A-2 or HC-C2YK-1 ()/F/F7666A

Pitch: High $29.0^{\circ} \pm 2^{\circ}$, Low $14.0^{\circ} \pm 2^{\circ}$ at 30 " Station

Diameter: Not over 74", not under 72.5" Governor Assembly: Hartzell F-2-7 ()

Avoid continuous operation between 2000 - 2350 r.p.m.

<u>Propeller Spinner</u> Piper P/N 66785 spinner tip and P/N 66786 spinner shell or P/N 67790-0 spinner,

P/N 67791-0 bulkhead, P/N 67793-0 bulkhead, and P/N 99499-0 plate. Two each P/N

67794-0 cuff or Kit 760 410V.

See NOTE 11.

Airspeed Limits Never exceed 214 mph (186 knots) CAS

Maximum structural cruising 170 mph (148 knots) CAS Maneuvering 134 mph (116 knots) CAS Flaps Extended 125 mph (109 knots) CAS 150 mph Maximum gear extension (130 knots) CAS Maximum gear retraction 125 mph (109 knots) CAS

Center of Gravity Range (+81.0) to (+95.9) at 1925 lb. or less

(+90.0) to (+95.9) at 2600 lb. Straight line variation between points given.

Moment due to retracting of landing gear (+819 in-lb.)

Empty Weight C. G. Range None

Maximum Weight 2600 lb.

No. of Seats 4 (2 at +85.5, 2 at +118.1)

<u>Maximum Cargo</u> 200 lb. (at +142.8)

Fuel Capacity 50 gallons at (+95) (2 wing tanks)

See NOTE 1 for data on system fuel.

Oil Capacity 8 quarts at (+29.5) (6 quarts usable)

See NOTE 1 for data on system oil.

<u>Control Surface Movements</u> Wing flaps $(\pm 2^{\circ})$ Up 0° Down 40°

Ailerons 30° Down 15° $(\pm 2^{\circ})$ Up Rudder (±2°) Left 27° Right 27° Stabilator 18° 2° Down (±1°) Up Stabilator Tab Up 3° 12° $(\pm 1^{\circ})$ Down

<u>Nose Wheel Travel</u> $(\pm 2^{\circ})$ Left 30° Right 30°

Manufacturer's Serial Numbers 28R-35001 through 28R-35820, and 28R-7135001 through 28R-7135229. The

manufacturer is authorized to issue airworthiness certificates for airplanes serial numbers 28R-35001 through 28R-35820, and 28R-7135001 through 28R-7135229 under the

delegation option provisions of FAR 21.

Page 15 of 42 2A13

XI - Model PA-28R-200 (Arrow II), 4 PCLM (Normal Category), Approved December 2, 1971, for S/N 28R-7235001 through 28R-7635545.

This series differs from the basic PA-28R-200 (Item X) by the addition of a five-inch fuselage extension, larger horizontal tail, wing span increase, gross weight increase, and other minor changes.

Engine Lycoming IO-360-C1C (See NOTE 22)

Lycoming IO-360-C1C6 (See NOTE 23)

Injector Bendix Type RSA-5AD1, Part List Number 2524450

Fuel 100/130 minimum grade aviation gasoline

Engine Limits For all operations, 2700 r.p.m. (200 hp)

Propeller and Propeller Limits Hartzell Constant Speed Model HC-C2YK-1 () or HC-C2YK-1() F

Blade Model 7666A-2 or F7666A-2 (See NOTE 22) Pitch: High $29.0^{\circ} \pm 2^{\circ}$, Low $14.0^{\circ} \pm .2^{\circ}$ at 30° Station.

Diameter: Not over 74", not under 72.5". Governor Assembly: Hartzell F-2-7()

Avoid continuous operation between 2000 - 2350 r.p.m.

or McCauley Constant Speed Model B2D34C213, Blade Model 90DHA-16 (See NOTE

23)

Pitch: High $27.5^{\circ} \pm .5^{\circ}$; Low $12.5^{\circ} \pm .2^{\circ}$ at 30" Station.

Diameter: Not over 74", not under 73". Governor Assembly: Hartzell F-2-7 ()

Avoid continuous operation between 1500 and 1950 r.p.m. below 15" manifold

pressure.

Propeller Spinner For the Hartzell Propeller: Piper P/N 66785-00 spinner tip, P/N 66786 spinner shell and

P/N 68734-0 bulkhead or P/N 99374-0 spinner installation (same as Kit No. 760

410V). See NOTE 11.

For the McCauley Propeller: Piper P/N 66785 spinner tip and P/N 66786 spinner shell or P/N 67790-0 spinner, P/N 67791-0 bulkhead, P/N 67793-0 bulkhead, and P/N 99499-0 plate. Two each P/N 67794-0 cuff, or Kit 760 410V. Spinner and attachment plate

installation P/N 35828-2. See NOTES 11 and 23.

Airspeed Limits Never exceed 214 mph (186 knots) CAS Maximum structural cruising 170 mph (148 knots) CAS

Maneuvering 131 mph (114 knots) CAS Flaps Extended 125 mph (109 knots) CAS Maximum gear extension 150 mph (130 knots) CAS Maximum gear retraction 125 mph (109 knots) CAS

Center of Gravity Range (+80.0) to (+93.0) at 1800 lb. or less

(+82.0) to (+93.0) at 2300 lb. (+87.3) to (+93.0) at 2650 lb.

Empty Weight C. G. Range None

Maximum Weight 2650 lb.

No. of Seats 4 (2 at +80.5, 2 at +118.1)

<u>Maximum Cargo</u> 200 lb. (at +142.8)

<u>Fuel Capacity</u> 50 gallons at (+95) (2 wing tanks)

See NOTE 1 for data on system fuel.

Oil Capacity 8 quarts at (+24.5) (6 quarts usable)

See NOTE 1 for data on system oil.

2A13 Page 16 of 42

Control Surface Movements	Wing flaps	$(\pm 2^{\circ})$	Up	0°	Down	40°
	Ailerons	$(\pm 2^{\circ})$	Up	30°	Down	15°
	Rudder	$(\pm 2^{\circ})$	Left	27°	Right	27°
	Stabilator	(±1°)	Up	16°	Down	2°
	Stabilator Tab	(±1°)	Up	3°	Down	12°
Nose Wheel Travel		(±2°)	Left	30°	Right	30°
Nose wheel Havei		(±2)	Len	30	Kigiit	30

<u>Manufacturer's Serial Numbers</u> 28R-7235001 through 28R-7635545. The manufacturer is authorized to issue

airworthiness certificates for airplane serial numbers 28R-7235001 through 28R-7635545 under the delegation option provisions of FAR 21. See NOTE 20.

XII - Model PA-28-180 (Archer), 4 PCLM (Normal Category), 2 PCLM (Utility Category), Approved May 22, 1972, for S/N 28- E13, and 28-7305001 through 28-7505260.

This series differs from the basic PA-28-180 (Item III) by the addition of a five inch fuselage extension, wing span increase, larger horizontal tail, gross weight increase and other minor changes.

Engine Lycoming O-360-A4A or O-360-A4M with carburetor settings 10-3878 or 10-5193

<u>Fuel</u> 100/130 minimum grade aviation gasoline

Engine Limits For all operations, 2700 r.p.m. (180 hp)

<u>Propeller and Propeller Limits</u> Sensenich or 76EM8S5 or M76EMMS

Static r.p.m. at maximum permissible throttle setting not over 2425 r.p.m.,

not under 2325 r.p.m.

No additional tolerance permitted. Diameter: Not over or under 76".

<u>Propeller Spinner</u> Piper P/N 65805-00.

See NOTE 11.

Airspeed Limits Never exceed 171 mph (148 knots) CAS

Maximum structural cruising 140 mph (121 knots) CAS Maneuvering 127 mph (110 knots) CAS Flaps Extended 115 mph (100 knots) CAS

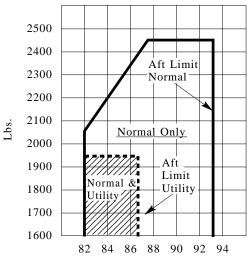
Center of Gravity Range Normal Category

 $\begin{array}{ccccc} (+82.0) & to & (+93.0) & at & 2050 \ lb. \ or \ less \\ (+87.4) & to & (+93.0) & at & 2450 \ lb. \end{array}$

Utility Category

(+82.0) to (+86.5) at 1950 lb. or less Straight line variation between points given.

Page 17 of 42 2A13



Fuselage Station - Inches

Empty Weight C. G. Range

None

Maximum Weight

Normal Category: 2450 lb. Utility Category: 1950 lb.

No. of Seats

Normal Category: 4 (2 at +80.5 2 at +118.1)

Utility Category: 2 (2 at +80.5)

Maximum Baggage

200 lb. at (+142.8)

Fuel Capacity

50 gallons at (+95) (2 wing tanks) See NOTE 1 for data on system fuel.

Oil Capacity

8 quarts at (+27.5) (6 quarts usable) See NOTE 1 for data on system oil.

Control	Curfoso	Movement	

Wing flaps	$(\pm 2^{\circ})$	Up 0°	Down	40°
Ailerons	(±2°)	Up 30°	Down	15°
Rudder	(±2°)	Left 27°	Right	27°
Stabilator	(±1°)	Up 14°	Down	2°
Stabilator Tab	(±1°)	Up 3°	Down	12°

Nose Wheel Travel

 $\begin{array}{cccc} (\pm 2^\circ) & Left & 22^\circ & Right & 22^\circ \\ (S/N \ 28-E13, \ 28-7305001 \ through \ 28-7305601) \\ & (\pm 2^\circ) & Left & 30^\circ & Right & 30^\circ \\ (S/N \ 28-7405001 \ through \ 28-7505260) \end{array}$

Manufacturer's Serial Numbers

28-E13, and 28-7305001 through 28-7505260. The manufacturer is authorized to issue airworthiness certificates for airplanes serial numbers 28-7305001 through 28-7505260 under the delegation option provisions of FAR 21. See NOTE 20.

XIII - Model PA-28-235 (Cherokee Pathfinder), 4 PCLM (Normal Category), Approved June 9, 1972, for S/N 28E-11, and 28-7310001 through 28-7710089.

This series differs from the basic PA-28-235 (Item VI) by the addition of a five inch fuselage extension, larger horizontal tail, gross weight increase, and other minor changes.

Engine Lycoming O-540-B4B5 with carburetor setting 10-5404

Fuel 80/87 minimum grade aviation gasoline

2A13 Page 18 of 42

Engine Limits For all operations, 2575 r.p.m. (235 hp)

Propeller and Propeller Limits Hartzell HC-C2YK-1()F/F 8468A-4

Pitch: High $27^{\circ} \pm 2^{\circ}$, Low $13.5^{\circ} \pm .2^{\circ}$ at 30'' station.

Diameter: Not over 80", not under 80".

Governor Assembly: Hartzell F-4-3() or F-4-13().

See NOTE 21.

P/N 99374 Spinner Installation. Propeller Spinner

Spinner required.

Airspeed Limits Never exceed 197 mph (171 knots) CAS 156 mph Maximum structural cruising (135 knots) CAS 138 mph Maneuvering (119 knots) CAS (99 knots) CAS

115 mph Flaps Extended

Center of Gravity Range

(+79.0)1900 lb. or less (+91.5) at 2500 lb. (+82.0)to (+91.5)at (+91.5) at 3000 lb. (+88.0)to Straight line variation between points given.

Empty Weight C. G. Range None

3000 lb. Maximum Weight

No. of Seats (2 at +80.5, 2 at +118.1)

Maximum Baggage 200 lb. at (+142.8)

Fuel Capacity 84 gallons (50 gallons in 2 wing tanks at (+95) and 34 gallons in 2 tip tanks at (+95))

See NOTE 1 for data on system fuel.

Oil Capacity 12 quarts at(\pm 29.1) (9½ quarts usable)

See NOTE 1 for data on system oil.

 0° 40° Control Surface Movements Wing flaps $(\pm 2^{\circ})$ Up Down

30° Ailerons 15° $(\pm 2^{\circ})$ Up Down Rudder 27° 27° $(\pm 2^{\circ})$ Left Right 2° Stabilator $(\pm 2^{\circ})$ 16° Down Up 12° Stabilator Tab 3° $(\pm 1^{\circ})$ Up Down

Nose Wheel Travel 22° $(\pm 2^{\circ})$ 22° Left Right

(S/N 28-E11, 28-7310001 through 28-7310176) $(\pm 2^{\circ})$ Left 30° Right 30° (S/N 28-7410001 through 28-7710089)

28-E11, and 28-7310001 through 28-7710089. The manufacturer is authorized to issue Manufacturer's Serial Numbers

> airworthiness certificates for airplane serial numbers 28-E11, and 28-7310001 through 28-7710089 under the delegation option provisions of FAR 21. See NOTE 20.

XIV - Model PA-28-151 (Cherokee Warrior), 4 PCLM (Normal Category), 2 PCLM (Utility Category), Approved August 9, 1973, for S/N 28-7415001 through 28-7715314.

Lycoming O-320-E30 with carburetor setting 10-5009, or 10-5009N, or 10-5135 **Engine**

Fuel 80/87 minimum grade aviation gasoline

Engine Limits For all operations, 2700 r.p.m. (150 hp) Page 19 of 42 2A13

Propeller and Propeller Limits Sensenich M74DM6

Static r.p.m. at maximum permissible throttle setting not over 2375 r.p.m.,

not under 2275 r.p.m.

No additional tolerance permitted. Diameter: Not over 74", not under 72".

or

McCauley 1C160 EGM 7653

Static r.p.m. at maximum permissible throttle setting not over 2400 r.p.m.,

not under 2300 r.p.m.

No additional tolerance permitted. Diameter: Not over 76", not under 74.5".

<u>Propeller Spinner</u> Piper P/N 35323.

See NOTE 11.

<u>Airspeed Limits</u> Never exceed 176 mph (153 knots) CAS

Maximum structural cruising 140 mph (122 knots) CAS Maneuvering 111 mph (108 knots) CAS

Flaps Extended 125 mph (109 knots) CAS

(S/N 28-7415001 through 28-7515449)

Flaps Extended 115 mph (100 knots) CAS

(S/N 28-7615001 through 28-7715314)

Center of Gravity Range Normal Category

(+83.0) to (+93.0) at 1950 lb. or less (+87.0) to (+93.0) at 2325 lb.

Utility Category

(+83.0) to (+86.5) at 1950 lb. or less Straight line variation between points given.

Empty Weight C. G. Range None

Maximum Weight Normal Category: 2325 lb.

Utility Category: 1950 lb.

No. of Seats Normal Category: 4 (2 at +80.5, 2 at +118.1)

Utility Category: 2 (2 at +80.5)

<u>Maximum Baggage</u> Eligible Normal Category only:

200 lb. at (+142.8)

<u>Fuel Capacity</u> 50 gallons at (+95) (2 wing tanks)

See NOTE 1 for data on system fuel.

Oil Capacity 8 quarts at (+27.5) (6 quarts usable)

See NOTE 1 for data on system oil.

Ailerons (±2°) Up 23° Down (S/N 28-7415001 through 28-7515449)

Ailerons $(\pm 2^{\circ})$ Up 25° Down 12.5°

(S/N 28-7615001 through 28-7715314)

27° Rudder $(\pm 2^{\circ})$ Left 27° Right Stabilator $(\pm 1^{\circ})$ Up 14° Down 2° Stabilator Tab 3° 12° Down $(\pm 1^{\circ})$ Up

Nose Wheel Travel $(\pm 1^{\circ})$ Left 30° Right 30°

2A13 Page 20 of 42

Manufacturer's Serial Numbers 28-7415001 through 28-7715314. The manufacturer is authorized to issue

airworthiness certificates for airplanes serial numbers 28-7415001 through 28-7715314

under the delegation option provisions of FAR 21.

XV - A.- Model PA-28-181 (Archer II), 4 PCLM (Normal Category), 2 PCLM (Utility Category), Approved July 8, 1975, for S/N 28-7690001 through 28-8690056; 28-8690061; 28-8690062; and 2890001 through 2890205.

Lycoming O-360-A4M with carburetor settings 10-3878 or 10-5193 or **Engine**

Lycoming O-360-A4A with carburetor setting 10-5193.

Fuel 100/130 minimum grade aviation gasoline

Engine Limits Applicable to S/N 28-7690001 through 28-7990589:

For all operations, 2700 r.p.m. (180 hp)

Applicable to S/N 28-8090001 through 28-8690056; 28-8690061; 28-8690062; and

2890001 through 2890205:

For takeoff 5 minutes at 2700 r.p.m. (180 hp)

For maximum continuous operation, 2650 r.p.m. (178 hp)

Propeller and Propeller Limits Sensenich 76EM8S5

For S/N 28-7690001 through 28-7790607:

Static r.p.m. at maximum permissible throttle setting, not over 2425 r.p.m., not under 2325 r.p.m. at sea level, ISA conditions. (Reference aircraft Maintenance Manual for test procedure to determine approved static r.p.m.

under nonstandard conditions.) No additional tolerance permitted. Diameter: Not over or under 76".

For S/N 28-7890001 through 28-8690056; 28-8690061; 28-8690062; and 2890001

through 2890205:

Static r.p.m. at maximum permissible throttle setting, not over 2340 r.p.m., not under 2240 r.p.m. at sea level, ISA conditions. (Reference aircraft Maintenance Manual for test procedure to determine approved static r.p.m.

under nonstandard conditions.) No additional tolerance permitted. Diameter: Not over or under 76".

Piper P/N 65805-00. Propeller Spinner

See NOTE 11.

Airspeed Limits Never exceed (148 knots) CAS 171 mph

Maximum structural cruising CAS 140 mph (121 knots)

For S/N 28-7690001 thru 28-7690467:

Maneuvering 124 mph (108 knots) CAS

For S/N 28-7790001 thru 28-7790589, 28-8090001 through 28-8690056, 28-8690061, 28-8690062, and 2890001

through 2890205:

CAS Maneuvering @ 2550 lbs. 128 mph (111 knots) Maneuvering @ 1634 lbs. 102 mph (89 knots) **CAS**

2558 lb. *

Center of Gravity Range Normal Category

2050 lb. or less (+82.0) to (+93.0) at 2550 lb. (+88.6) to (+93.0) at

Utility Category

(+82.0) to (+93.0) at 2050 lb. or less (+83.0) to (+93.0) at 2130 lb. Straight line variation between points given.

Empty Weight C. G. Range

Maximum Weight Normal Category: Ramp -

None

Page 21 of 42 2A13

Takeoff - 2550 lb.

Utility Category: Ramp - 2138 lb. *

Takeoff - 2130 lb.

* - Ramp weights for S/N 28-8090001 through 28-8690056; 28-8690061; 28-8690062;

and 2890001 through 2890205 only.

No. of Seats Normal Category: 4 (2 at +80.5, 2 at +118.1)

Utility Category: 2 (2 at +80.5)

Maximum Baggage 200 lb. at (+142.8)

Fuel Capacity 50 gallons at (+95) (2 wing tanks)

See NOTE 1 for data on system fuel.

Oil Capacity 8 quarts at (+27.5) (6 quarts usable)

See NOTE 1 for data on system oil.

Ailerons 25° (±2°) Down 12.5° Up 27° Rudder $(\pm 2^{\circ})$ Left Right 27° Stabilator $(\pm 1^{\circ})$ 14° Down 2° Up Stabilator Tab $(\pm 1^{\circ})$ Up 3° Down 12°

Nose Wheel Travel (±2°) Left 30° Right 30°

<u>Manufacturer's Serial Numbers</u> 28-7690001 through 28-8690056; 28-8690061; 28-8690062; and 2890001 through

2890205. The manufacturer is authorized to issue airworthiness certificates for airplane serial numbers 28-7690001 through 28-8690056; 28-8690061; 28-8690062; and 2890001 through 2890205 under the delegation option provisions of FAR 21.

See NOTE 20.

XV - B.- Model PA-28-181 (Archer III), 4 PCLM (Normal Category), 2 PCLM (Utility Category), Approved August 30, 1994, for S/N 2890206 through 2890231, and 2843001 and up.

Engine Lycoming O-360-A4M with carburetor settings 10-5193

<u>Fuel</u> 100/130 minimum grade aviation gasoline

Engine Limits For all operations, 2700 r.p.m. (180 hp)

Propeller and Propeller Limits Sensenich 76EM8S14-0-62

Static r.p.m. at maximum permissible throttle setting, not over 2340 r.p.m.,

not under 2240 r.p.m. at sea level, ISA conditions. (Reference aircraft Maintenance Manual for test procedure to determine approved static r.p.m. under nonstandard

conditions.)

No additional tolerance permitted. Diameter: Not over or under 76".

<u>Propeller Spinner</u> Piper P/N 83349-02

<u>Airspeed Limits</u> Never exceed 171 mph (148 knots) CAS

140 mph CAS Maximum structural cruising (121 knots) Maneuvering @ 2550 lbs. 128 mph (111 knots) CAS Maneuvering @ 1634 lbs. 102 mph (89 knots) CAS Flaps Extended 115 mph (100 knots) **CAS**

2A13 Page 22 of 42

Center of Gravity Range Normal Category

(+82.0) to (+93.0) at 2050 lb. or less (+88.6) to (+93.0) at 2550 lb.

Utility Category

(+82.0) to (+93.0) at 2050 lb. or less (+83.0) to (+93.0) at 2130 lb. Straight line variation between points given.

Empty Weight C. G. Range None

Maximum Weight Normal Category: Ramp - 2558 lb.

Takeoff - 2550 lb.

Utility Category: Ramp - 2138 lb.

Takeoff - 2130 lb.

No. of Seats Normal Category: 4 (2 at +80.5, 2 at +118.1)

Utility Category: 2 (2 at +80.5)

Maximum Baggage 200 lb. at (+142.8)

Fuel Capacity 50 gallons at (+95) (2 wing tanks)

See NOTE 1 for data on system fuel.

Oil Capacity 8 quarts at (+27.5) (6 quarts usable)

See NOTE 1 for data on system oil.

Ailerons (±2°) 25° Down 12.5° Up Rudder $(\pm 2^{\circ})$ Left 27° Right 27° (±1°) 2° Stabilator Up 14° Down Stabilator Tab $(\pm 1^{\circ})$ Up 3° Down 12°

Nose Wheel Travel (±2°) Left 30° Right 30°

Manufacturer's Serial Numbers 2890206 through 2890231, and 2843001 and up. The manufacturer is authorized to

issue airworthiness certificates for airplane serial numbers 2890206 through 2890231,

and 2843001 and up under the delegation option provisions of FAR 21.

XVI - A. - Model PA-28-161 (Warrior II), 4 PCLM (Normal Category), 2 PCLM (Utility Category), Approved November 2, 1976, for S/N 28-7716001 through 28-8216300, and 2841001 through 2841365 (Cadet only)

Engine Lycoming O-320-D3G with carburetor setting 10-5135, 10-5009 or 10-5217, or

Lycoming O-320-D2A with carburetor setting 10-5135 or 10-5217.

<u>Fuel</u> 100 octane minimum grade aviation gasoline

Engine Limits For all operations, 2700 r.p.m. (160 hp)

<u>Propeller and Propeller Limits</u> Sensenich 74DM6-0-60

Static r.p.m. at maximum permissible throttle setting not over 2430 r.p.m.,

not under 2330 r.p.m., at sea level, ISA conditions. (Reference aircraft Maintenance Manual for test procedure to determine approved static r.p.m. under nonstandard

conditions.)

No additional tolerance permitted. Diameter: Not over 74", not under 72".

Page 23 of 42 2A13

Propeller and Propeller Limits o

Sensenich 74DM6-0-58

Static r.p.m. at maximum permissible throttle setting not over 2465 r.p.m.,

 $not\ under\ 2365\ r.p.m.,\ at\ sea\ level,\ ISA\ conditions.\ (Reference\ aircraft\ Maintenance\ Manual\ for\ test\ procedure\ to\ determine\ approved\ static\ r.p.m.\ under\ nonstandard$

conditions.)

No additional tolerance permitted. Diameter: Not over 74", not under 72".

Propeller Spinner P/N 35323 or P/N 36850.

See NOTE 11.

Airspeed Limits Never exceed 160 KIAS

Maximum structural cruising 126 KIAS
Maneuvering at 2325 lb. gross weight
Maneuvering at 1531 lb. gross weight
Flaps Extended 103 KIAS

Center of Gravity Range

Normal Category

(+83.0) to (+93.0) at 1950 lb. or less

(+87.0) to (+93.0) at 2325 lb.

See NOTE 27.

Utility Category

 $\begin{array}{ccccc} (+83.0) & \text{to} & (+93.0) & \text{at} & 1950 \text{ lb. or less} \\ (+83.8) & \text{to} & (+93.0) & \text{at} & 2020 \text{ lb.} \end{array}$

Straight line variation between points given.

Empty Weight C.G. Range

None

Maximum Weight Normal Category: 2325 lb.

Utility Category: 2020 lb.

Ramp: 2332 lb. (Cadet only) See NOTE 27.

No. of Seats Normal Category: 4 (2 at +80.5, 2 at +118.1)

Utility Category: 2 (+2 at +80.5)

Maximum Baggage Eligible Normal Category only:

200 lb. at(+142.8) 50 lb. (Cadet only)

Fuel Capacity 50 gallons at (+95) (2 wing tanks)

See NOTE 1 for data on system fuel.

Oil Capacity 8 quarts at (+27.5) (6 quarts usable)

See NOTE 1 for data system oil.

Control Surface Movements Wing flaps (±2°) Up 0° Down 40°

Ailerons (±2°) Up 25° Down 12.5° 27° Rudder (±2°) Left Right 27° 2° Stabilator (±1°) Up 14° Down Stabilator Tab (±1°) 3° 12° Up Down

Nose Wheel Travel (±1°) Left 30° Right 30°

Manufacturer's Serial Numbers

28-7716001 through 28-8216300, and 2841001 through 2841365 (Cadet only). The manufacturer is authorized to issue airworthiness certificates for airplane serial numbers 28-7716001 through 28-8216300, and 2841001 through 2841365 under the delegation

option provisions of FAR 21. See NOTE 20.

2A13 Page 24 of 42

XVI - B. Model PA-28-161 (Warrior II), 4 PCLM (Normal Category), 2 PCLM (Utility Category), Approved July 1, 1982, for S/N 28-8316001 through 28-8616057, and 2816001 through 2816109.

Engine Lycoming O-320-D3G with carburetor setting 10-5135, 10-5009 or 10-5217,

or Lycoming O-320-D2A with carburetor setting 10-5135 or 10-5217.

<u>Fuel</u> 100 octane minimum grade aviation gasoline

Engine Limits For all operations, 2700 r.p.m. (160 hp)

Propeller and Propeller Limits Sensenich 74DM6-0-60

Static r.p.m. at maximum permissible throttle setting not over 2430 r.p.m.,

not under 2330 r.p.m. at sea level, ISA conditions. (Reference aircraft Maintenance Manual for test procedure to determine approved static r.p.m. under nonstandard

conditions.)

No additional tolerance permitted. Diameter: Not over 74", not under 72".

or

Sensenich 74DM6-0-58

Static r.p.m. at maximum permissible throttle setting not over 2465 r.p.m.,

not under 2365 r.p.m., at sea level, ISA conditions. (Reference aircraft Maintenance Manual for test procedure to determine approved static r.p.m. under nonstandard

conditions.)

No additional tolerance permitted. Diameter: Not over 74", not under 72".

<u>Propeller Spinner</u> Piper P/N 36850.

See NOTE 11.

<u>Airspeed Limits</u> Never exceed 160 KIAS

Maximum structural cruising 126 KIAS

Maneuvering at 2440 lb. gross weight 111 KIAS See NOTE 26.

Maneuvering at 1531 lb. gross weight 88 KIAS Flaps Extended 103 KIAS

Center of Gravity Range Normal Category

(+83.0) to (+93.0) at 1950 lb. or less (+88.3) to (+93.0) at 2440 lb.

See NOTE 26.

Utility Category

(+83.0) to (+93.0) at 1950 lb. or less (+83.8) to (+93.0) at 2020 lb. Straight line variation between points given

Empty Weight C.G. Range None

Maximum Weight Normal Category: Ramp - 2447 lb.

Takeoff - 2440 lb. See NOTE 26.

Utility Category: Ramp - 2027 lb. Takeoff - 2020 lb.

No. of Seats Normal Category: 4 (2 at +80.5, 2 at +118.1)

Utility Category: 2 (2 at +80.5)

Maximum Baggage Eligible Normal Category only: 200 lb. at (+142.8)

Fuel Capacity 50 gallons at (+95) (2 wing tanks)

See NOTE 1 for data on system fuel.

Page 25 of 42 2A13

Oil Capacity 8 quarts at (+27.5) (6 quarts usable)

See NOTE 1 for data on system oil.

 $\underline{Control\ Surface\ Movements}\qquad \quad Wing\ flaps \qquad \qquad (\pm 2^\circ) \qquad \quad Up \qquad 0^\circ \qquad \quad Down \qquad \quad 40^\circ$

Ailerons $(\pm 2^{\circ})$ Up 25° Down 12.5° 27° Rudder $(\pm 2^{\circ})$ Left Right 27° 2° Stabilator $(\pm 1^{\circ})$ 14° Up Down Stabilator Tab 3° 12° $(\pm 1^{\circ})$ Down Up

Nose Wheel Travel (±1°) Left 30° Right 30°

Manufacturer's Serial Nos. 28-8316001 through 28-8616057, and 2816001 through 2816109. The manufacturer is

authorized to issue airworthiness certificates for airplane serial numbers 28-8316001 through 28-8616057, and 2816001 through 2816109 under the delegation option

provisions of FAR 21. See NOTE 20.

XVI - C. Model PA-28-161 (Warrior III), 4 PCLM (Normal Category), 2 PCLM (Utility Category), Approved July 1, 1994, for S/N 2816110 through 2816119, and 2842001 and up.

Engine Lycoming O-320-D3G with carburetor setting 10-5135, 10-5009 or 10-5217

<u>Fuel</u> 100 octane minimum grade aviation gasoline

Engine Limits For all operations, 2700 r.p.m. (160 hp)

Propeller and Propeller Limits Sensenich 74DM6-0-60

Static r.p.m. at maximum permissible throttle setting not over 2430 r.p.m.,

not under 2330 r.p.m., at sea level, ISA conditions. (Reference aircraft

Maintenance Manual for test procedure to determine approved static r.p.m. under

nonstandard conditions.)

No additional tolerance permitted. Diameter: Not over 74", not under 72".

<u>Propeller Spinner</u> Piper P/N 36850.

See NOTE 11.

Airspeed Limits Never exceed 160 KIAS

Maximum structural cruising 126 KIAS

Maneuvering at 2440 lb. gross weight 111 KIAS See NOTE 26.

Maneuvering at 1531 lb. gross weight 88 KIAS Flaps Extended 103 KIAS

Center of Gravity Range Normal Category

(+83.0) to (+93.0) at 1950 lb. or less (+88.3) to (+93.0) at 2440 lb.

See NOTE 26.

Utility Category

(+83.0) to (+93.0) at 1950 lb. or less (+83.8) to (+93.0) at 2020 lb.

Straight line variation between points given

Empty Weight C.G. Range None

<u>Maximum Weight</u> Normal Category: Ramp - 2447 lb.

Takeoff - 2440 lb. See NOTE 26.

Utility Category: Ramp - 2027 lb.

Takeoff - 2020 lb.

2A13 Page 26 of 42

No. of Seats Normal Category: 4 (2 at +80.5, 2 at +118.1)

Utility Category: 2 (2 at +80.5)

Maximum Baggage Eligible Normal Category only: 200 lb. at (+142.8)

Fuel Capacity 50 gallons at (+95) (2 wing tanks)

See NOTE 1 for data on system fuel.

Oil Capacity 8 quarts at (+27.5) (6 quarts usable)

See NOTE 1 for data on system oil.

<u>Control Surface Movements</u> Wing flaps $(\pm 2^{\circ})$ Up 0° Down 40°

Ailerons $(\pm 2^{\circ})$ 25° Down 12.5° Up Rudder 27° $(\pm 2^{\circ})$ Left Right 27° Stabilator 14° 2° $(\pm 1^{\circ})$ Up Down Stabilator Tab $(\pm 1^{\circ})$ Up 3° Down 12°

Nose Wheel Travel $(\pm 1^{\circ})$ Left 30° Right 30°

Manufacturer's Serial Nos. 2816110 through 2816119, and 2842001 and up. The manufacturer is authorized to

issue airworthiness certificates for airplane serial numbers 2816110 through 2816119,

and 2842001 and up under the delegation option provisions of FAR 21.

XVII - Model PA-28R-201 (Arrow III), 4 PCLM (Normal Category), Approved November 2, 1976, for S/N 28R-7737002 through 28R-7837317; 2837001 through 2837061; and 2844001 and up.

Engine Lycoming IO-360-C1C6

<u>Injector</u> Bendix Type RSA-5AD1, Part List Number 2524450

<u>Fuel</u> 100/130 minimum grade aviation gasoline

Engine Limits For all operations, 2700 r.p.m. (200 hp)

Propeller and Propeller Limits McCauley Constant Speed Hub Model B2D34C213, Blade Model 90 DHA-16

Pitch: High $27.5^{\circ} \pm .5^{\circ}$, Low $12.5^{\circ} \pm .2^{\circ}$ at 30" station.

Diameter: Not over 74", not under 73".

Governor Assembly: Hartzell Model F-2-7 ()

Avoid continuous operation between 1500 and 1950 r.p.m. below 15" manifold pressure.

or

Hartzell Constant Speed Hub Model HC-C2YK-1()F, Blade Model F7666A-2R

Pitch: High $29.0^{\circ} \pm 2^{\circ}$, Low $14.0^{\circ} \pm .2^{\circ}$ at 30" station.

Diameter: Not over 74", not under 72".

Governor Assembly: F-2-7 ()

Propeller Spinner For McCauley propeller: Piper P/N 35838-2

For Hartzell propeller: Piper P/N 99374

See NOTE 11.

Airspeed Limits Never exceed 183 KIAS

Maximum structural cruising146KIASManeuvering118KIASFlaps Extended103KIASMaximum Gear Extension129KIASMaximum Gear Retraction107KIAS

Center of Gravity Range (+82.0) to (+91.5) at 2375 lb. or less

 $(+88.9) \ \ to \ \ (+91.5) \ \ at \ \ \ 2750 \ lb.$

Straight line variation between points given.

Page 27 of 42 2A13

Moment due to retraction of gear (+819 in-lb.)

Empty Weight C.G. Range None

Maximum Weight 2750 lb.

No. of Seats 4 (2 at +80.5, 2 at +118.1)

Maximum Baggage 200 lb. at (+142.8)

Fuel Capacity 77 gallons at (+95) (2 wing tanks)

See NOTE 1 for data on system fuel.

Oil Capacity 8 quarts at (+24.5) (6 quarts usable)

See NOTE 1 for data on system oil.

<u>Control Surface Movements</u> Wing flaps $(\pm 2^{\circ})$ Up 0° Down 40°

Ailerons $(\pm 2^{\circ})$ Up 25° Down 12.5° (±1°) Rudder 28° Right 28° Left $(\pm 1^{\circ})$ Stabilator Down 2° Up 16° Stabilator Tab $(\pm 1^{\circ})$ 3° Down 12° Up

Nose Wheel Travel (±2°) Left 30° Right 30°

<u>Manufacturer's Serial Numbers</u> 28R-7737002 through 28-7837317; 2837001 through 2837061; and 2844001 and up.

The manufacturer is authorized to issue airworthiness certificates for airplanes serial numbers 28R-7737002 through 28-7837317; 2837001 through 2837061; and 2844001

and up under the delegation option provisions of FAR 21. See NOTE 20.

XVIII - Model PA-28R-201T (Turbo Arrow III), 4 PCLM (Normal Category), Approved November 2, 1976, for S/N 28R-7703001 through 28R-7803374, and 2803001 through 2803012.

Engine Continental TSIO-360-F or TSIO-360-FB

<u>Fuel</u> 100/130 minimum grade aviation gasoline

Engine Limits For all operations, 2575 r.p.m. at 41" Hg. manifold pressure (200 hp)

Propeller and Propeller Limits 1 Hartzell Hub Model BHC-C2YF-1BF, Blade Model F8459A-8R

Pitch Setting at 30" Station: High: $29^{\circ} \pm 1.0^{\circ}$, Low: $14.4^{\circ} \pm 0.2^{\circ}$.

Diameter: Not over 76", not under 75".

Governor: Hartzell E-5 or Woodward G210681

Avoid continuous operation between 2000 and 2200 r.p.m. with engine manifold

pressure above 32" Hg.

Avoid continuous ground operation in cross and tail winds of over 10 knots

between 1700 and 2100 r.p.m.

<u>Propeller Spinner</u> Hartzell P/N C3568 Spinner Assembly.

See NOTE 11.

<u>Airspeed Limits</u> Never exceed 183 KIAS

Maximum structural cruising 146 KIAS Maneuvering 119 KIAS Flaps Extended 103 KIAS 2A13 Page 28 of 42

> Maximum Gear Retraction **107 KIAS** Maximum Gear Extension **129 KIAS** Maximum Gear Extended **129 KIAS**

Center of Gravity Range (+86.0) to (+90.0)2900 lb. at (+78.0) to (+90.0)at 2240 lb. or less

Straight line variation between points given.

Moment due to retraction of landing gear (+819 in-lb.)

Empty Weight C. G. Range None

Maximum Weight Ramp: 2912 lb.

Takeoff: 2900 lb.

No. of Seats (2 at +80.5, 2 at +118.1)

Maximum Baggage 200 lb. at (+142.8)

Fuel Capacity 77 gallons at (+95)(2 wing tanks)

See NOTE 1 for data on system fuel.

8 quarts at (+13.5) (5 quarts usable) Oil Capacity

See NOTE 1 for data on system oil.

Maximum Operating Altitude 20,000 feet

Control Surface Movements Wing flaps $(\pm 2^{\circ})$ Up 0° Down 40°

Ailerons (±2°) 25° Down 12.5° Up Rudder Left 28° Right 28° $(\pm 1^{\circ})$ Stabilator (±1°) Up 16° Down 2° 12° Stabilator Tab (±1°) Up 3° Down

Nose Wheel Travel (±2°) Left 30° Right 30°

Manufacturer's Serial Numbers 28R-7703001 through 28R-7803374, and 2803001 through 2803012. The manufacturer

> is authorized to issue airworthiness certificates for airplanes serial numbers 28R-7703001 through 28R-7803374, and 2803001 through 2803012 under the delegation option

provisions of FAR 21. See NOTE 20.

XIX - Model PA-28-236 (Dakota), 4 PCLM (Normal Category), Approved June 1, 1978, for S/N 28-7911001 through 28-8611008; 2811001 through 2811050; and 2845001 and up.

Engine Lycoming O-540-J3A5D with carburetor setting 10-5054

Fuel 100/130 minimum grade aviation gasoline

Engine Limits For all operations, 2400 r.p.m. (235 hp)

Propeller and Propeller Limits Hartzell HC-F2YR-1()F/F 8468A-4R

Pitch: High $32^{\circ} \pm 2^{\circ}$, Low $16.25^{\circ} \pm \frac{1}{4}^{\circ}$. Diameter: Not over 80", not under 78". Governor Assembly: Hartzell F-4-21()

Page 29 of 42 2A13

<u>Propeller Spinner</u> Hartzell P/N C3568 Spinner Assembly.

See NOTE 11.

Airspeed Limits Never exceed 197 mph (171 knots) CAS

Maximum structural cruising 156 mph (135 knots) CAS Maneuvering at 3000 lb. 140 mph (122 knots) CAS Maneuvering at 1761 lb. 108 mph (94 knots) CAS 115 mph Flaps Extended (100 knots) CAS

Center of Gravity Range (+79.8) to (+92.0) at 1900 lb. or less

(+82.5) to (+92.0) at 2500 lb. (+88.5) to (+92.0) at 3000 lb. Straight line variation between points given.

Empty Weight C. G. Range None

Maximum Weight 3000 lb.

Number of Seats 4 (2 at +80.5, 2 at +118.1)

Maximum Baggage 200 lb. at (+142.8)

Fuel Capacity 77 gallons at (+95) (2 wing tanks)

See NOTE 1 for data on system fuel.

Oil Capacity 12 quarts at (+29.1) (9 1/2 quarts usable)

See NOTE 1 for data on system oil.

<u>Control Surface Movements</u> Wing flaps $(\pm 2^{\circ})$ Up 0° Down 40°

25° Ailerons $(\pm 2^{\circ})$ Up Down 12.5° Rudder $(\pm 1^{\circ})$ Left 28° Right 28° Stabilator 16° 2° $(\pm 1^{\circ})$ Up Down Stabilator Tab 3° Down 12° $(\pm 1^{\circ})$ Up

Nose Wheel Travel $(\pm 1^{\circ})$ Left 30° Right 30°

<u>Manufacturer's Serial Numbers</u> 28-7911001 through 28-8611008; 2811001 through 2811050; and 2845001 and up. The

manufacturer is authorized to issue airworthiness certificates for airplane serial numbers 28-7911001 through 28-8611008; 2811001 through 2811050; and 2845001 and up

under the delegation option provisions of FAR 21. See NOTE 20.

XX - A. Model PA-28RT-201 (Arrow IV), 4 PCLM (Normal Category), Approved November 13, 1978, for S/N 28R-7918001 through 28R-7918267.

Engine Lycoming IO-360-C1C6

<u>Injector</u> Bendix Type RSA-5AD1, Part List Number 2524450

<u>Fuel</u> 100/130 minimum grade aviation gasoline

Engine Limits For all operations, 2700 r.p.m. (200 hp)

Propeller and Propeller Limits McCauley Constant Speed Hub Model B2D34C213, Blade Model 90 DHA-16

Pitch: High $27.5^{\circ} \pm .5^{\circ}$, Low $12.5^{\circ} \pm .2^{\circ}$ at 30" station.

Diameter: Not over 74", not under 73". Governor Assembly: Hartzell Model F-2-7 ()

Avoid continuous operation between 1500 and 1950 r.p.m. below 15" manifold

pressure.

2A13 Page 30 of 42

Propeller and Propeller Limits or

Hartzell Constant Speed Hub Model HC-C2YK-1()F, Blade Model F7666A-2R

Pitch: High $29.0^{\circ} \pm 2^{\circ}$, Low $14.0^{\circ} \pm .2^{\circ}$ at 30" station.

Diameter: Not over 74", not under 72". Governor Assembly: Hartzell Model F-2-7()

<u>Propeller Spinner</u> For the McCauley propeller: Piper P/N 35828-2

For the Hartzell propeller:

Piper P/N 99374

See NOTE 11.

Airspeed Limits Never exceed 190 KIAS

Maximum structural cruising149 KIASFlaps extended108 KIASMaximum gear extension130 KIASMaximum gear retraction109 KIASMaximum gear extended130 KIASManeuvering at 2750 lb.121 KIASManeuvering at 1863 lb.96 KIAS

Center of Gravity Range (+85.5) to (+93.0) at 2400 lb. or less

(+90.0) to (+93.0) at 2750 lb.

Straight line variation between points given. Moment due to retraction of gear (+819 in-lb.)

Empty Weight C. G. Range None

Maximum Weight 2750 lb.

No. of Seats 4 (2 at +80.5, 2 at +118.1)

Maximum Baggage 200 lb. at (+142.8)

Fuel Capacity 77 gallons at (+95) (2 wing tanks)

See NOTE 1 for data on system fuel.

Oil Capacity 8 quarts at (+24.5) 6 quarts usable

See NOTE 1 for data on system oil.

<u>Control Surface Movements</u> Wing flaps $(\pm 2^{\circ})$ Up 0° Down 40°

Ailerons 25° 12.5° $(\pm 2^{\circ})$ Up Down Rudder (±1°) 33° Right 33° Left Stabilator (±1°) 14° 10° Up Down Stabilator Tab Up $2.5^{\circ} (\pm 1^{\circ})$ Down $10^{\circ} (\pm .5^{\circ})$

<u>Nose Wheel Travel</u> $(\pm 2^{\circ})$ Left 30° Right 30°

Manufacturer's Serial Numbers 28R-7918001 through 28R-7918267. The manufacturer is authorized to issue

airworthiness certificates for airplane serial numbers 28R-7918001 through

28R-7918267 under the delegation option provisions of FAR 21.

XX - B. Model PA-28RT-201 (Arrow IV), 4 PCLM (Normal Category), Approved November 13, 1978, for S/N 28R-8018001 through 28R-8218026.

Engine Lycoming IO-360-C1C6

<u>Injector</u> Bendix Type RSA-5AD1, Part List Number 2524450

<u>Fuel</u> 100/130 minimum grade aviation gasoline

Page 31 of 42 2A13

Engine Limits For 5-minute takeoff, 2700 r.p.m. (200 hp)

For maximum continuous operation, 2650 r.p.m. (196 hp)

Propeller and Propeller Limits McCauley Constant Speed Hub Model 2D34C215, Blade Model 90 DJA-14E

Pitch: High $27.5^{\circ} \pm .5^{\circ}$; Low $12.5^{\circ} \pm .2^{\circ}$ at 30" station.

Diameter: Not over 76", not under 75". Governor Assembly: Hartzell Model F-2-7 ()

Avoid continuous operation between 1400 and 1750 r.p.m. below 15" manifold

pressure.

Piper P/N 35828-2. Propeller Spinner

See NOTE 11.

190 KIAS Airspeed Limits Never exceed

Maximum structural cruising **149 KIAS 108 KIAS** Flaps Extended Maximum gear extension **130 KIAS** Maximum gear retraction **109 KIAS** Maximum gear extended 130 KIAS Maneuvering at 2750 lb. gross weight **121 KIAS** Maneuvering at 1863 lb. gross weight 96 KIAS

Center of Gravity Range (+85.5) to (+93.0) at 2400 lb. or less

(+90.0) to (+93.0) at 2750 lb. Straight line variation between points given. Moment due to retraction of gear (+819 in-lb.)

Empty Weight C. G. Range None

2750 lb. Maximum Weight

Number of Seats (2 at +80.5, 2 at +118.1)

Maximum Baggage 200 lb. at (+142.8)

Fuel Capacity 77 gallons at (+95) (2 wing tanks)

See NOTE 1 for data on system fuel.

Oil Capacity 8 quarts at (+24.5) (6 quarts usable)

See NOTE 1 for data on system oil.

0° 40° Control Surface Movements Wing flaps $(\pm 2^{\circ})$ Down Up

25° 12.5° Ailerons $(\pm 2^{\circ})$ Down Up Rudder $(\pm 1^{\circ})$ Left 33° Right 33° Stabilator $(\pm 1^{\circ})$ Up 14° Down 10° Stabilator Tab Up $2.5^{\circ} (\pm 1^{\circ})$ Down $10^{\circ} (\pm .5^{\circ})$

30° 30° Nose Wheel Travel $(\pm 2^{\circ})$ Left Right

Manufacturer's Serial Numbers 28R-8018001 through 28R-8218026. The manufacturer is authorized to issue

> airworthiness certificates for airplane serial numbers 28R-8018001 through 28R-8218026 under the delegation option provisions of FAR 21. See NOTE 20.

XXI - Model PA-28RT-201T (Turbo Arrow IV), 4 PCLM (Normal Category), Approved November 13, 1978, for S/N 28R-7931001 through 28R-8631005, and 2831001 through 2831038.

Engine Continental TSIO-360-FB

Fuel 100/130 minimum grade aviation gasoline 2A13 Page 32 of 42

Engine Limits For all operations, 2575 r.p.m., 41" Hg. manifold pressure (200 hp)

Propeller and Propeller Limits 1 Hartzell Hub Model BHC-C2YF-1()F, Blade Model F8459A-8R

Pitch: High $29^{\circ} \pm 1.0^{\circ}$, Low $14.4^{\circ} \pm .2^{\circ}$ at 30" station.

Diameter: Not over 76", not under 75". Governor: Hartzell E-5 or Woodward G210681

Avoid continuous operation between 2000 and 2200 r.p.m. with

engine manifold pressure above 32" Hg.

Avoid continuous ground operation in cross and tail winds of

over 10 knots between 1700 and 2100 r.p.m.

or

1 Hartzell Hub Model PHC-C3YF-1()F, Blade Model F7663-2R

Pitch: High $33^{\circ} \pm 1^{\circ}$, Low $13.2^{\circ} \pm .2^{\circ}$. Diameter: Not over 76", not under 72".

Governor: Hartzell E-5, Woodward G210681 or G210776

Propeller Spinner For the Hartzell Hub Model BHC-C2YF-1()F: Hartzell P/N C3568 Spinner Assembly

For the Hartzell Hub Model PHC-C3YF-1()F: Piper PS50077-80 Spinner Assembly

(Hartzell C3570)

See NOTE 11.

<u>Airspeed Limits</u> Never exceed 193 KIAS

Maximum structural cruising152 KIASManeuvering at 2900 lb.124 KIASManeuvering at 1893 lb.97 KIASFlaps Extended108 KIASMaximum Gear Retraction111 KIASMaximum Gear Extension133 KIASMaximum Gear Extended133 KIAS

Center of Gravity Range (+89.0) to (+93.0) at 2900 lb.

(+85.0) to (+93.0) at 2240 lb. or less Straight line variation between points given.

Moment due to retraction of landing gear (+819 in-lb.)

Empty Weight C. G. Range None

No. of Seats

Maximum Weight Ramp: 2912 lb. Takeoff: 2900 lb.

4 (2 at +80.5, 2 at +118.1)

Maximum Baggage 200 lb. at (+142.8)

Fuel Capacity 77 gallons at (+95)(2 wing tanks) See NOTE 1 for data on system fuel.

Oil Capacity 8 quarts at (+13.5) (5 quarts usable)

See NOTE 1 for data on system oil.

Maximum Operation Altitude 20,000 feet

Ailerons (±2°) Up 25° Down 12.5° (±1°) 33° Rudder Left Right 33° 14° Stabilator $(\pm 1^{\circ})$ Up Down 10° Stabilator Tab 2.5° (±1°) Down Up $10^{\circ} (\pm .5^{\circ})$

Nose Wheel Travel (±2°) Left 30° Right 30°

Page 33 of 42 2A13

Manufacturer's Serial Numbers 28R-7931001 through 28R-8631005, and 2831001 through 2831013. The manufacturer

is authorized to issue airworthiness certificates for airplane serial numbers 28R-7931001 through 28R-8631005, and 2831001 through 2831038 under the delegation option

provisions of FAR 21. See NOTE 20.

XXII - Model PA-28-201T (Turbo Dakota), 4 PCLM (Normal Category), Approved December 14, 1978, for S/N 28-7921001 through 28-7921095.

Engine Continental TSIO-360-FB

<u>Fuel</u> 100/130 minimum grade aviation gasoline

Engine Limits For all operations, 2575 r.p.m., 41" Hg. manifold pressure (200 hp)

Propeller and Propeller Limits 1 Hartzell Hub Model BHC-C2YF-1()F, Blade Model F8459A-8R

Pitch: High $29^{\circ} \pm 1.0^{\circ}$, Low $14.4^{\circ} \pm .2^{\circ}$ at 30'' station.

Diameter: Not over 76", not under 75".

Governor: Hartzell E-5 or Woodward G210681

Avoid continuous operation between 2000 and 2200 r.p.m. with

engine manifold pressure above 32" Hg.

Avoid continuous ground operation in cross and tail winds of

over 10 knots between 1700 and 2100 r.p.m.

Propeller Spinner Hartzell P/N C3568 Spinner Assembly.

See NOTE 11.

Airspeed Limits Never exceed 169 KIAS

Maximum structural cruising 140 KIAS Maneuvering at 2900 lb. 122 KIAS Maneuvering at 1841 lb. 96 KIAS Flaps Extended 102 KIAS

Center of Gravity Range (+86.0) to (+90.0) at 2900 lb.

(+78.0) to (+90.0) at 2240 lb. or less Straight line variation between points given.

Empty Weight C. G. Range None

Maximum Weight 2900 lb.

No. of Seats 4 (2 at +80.5, 2 at +118.1)

Maximum Baggage 200 lb. at (+142.8)

<u>Fuel Capacity</u> 77 gallons at (+95)(2 wing tanks)

See NOTE 1 for data on system fuel.

Oil Capacity 8 quarts at (+13.5) (5 quarts usable)

See NOTE 1 for data on system oil.

Maximum Operation Altitude 20,000 feet

<u>Control Surface Movements</u> Wing flaps $(\pm 2^{\circ})$ Up 0° Down 40°

Ailerons $(\pm 2^{\circ})$ Up 25° Down 12.5° 27° Rudder (±2°) Left Right 27° (±1°) Stabilator Up 16° Down 2° Up Stabilator Tab 3° Down 12° $(\pm 1^{\circ})$

Nose Wheel Travel $(\pm 1^{\circ})$ Left 30° Right 30°

2A13 Page 34 of 42

Manufacturer's Serial Numbers 28-7921001 through 28-7921095. The manufacturer is authorized to issue airworthiness

certificates for airplane serial numbers 28-7921001 through 28-7921095 under the delegation option provisions of FAR 21. See NOTE 20.

DATA PERTINENT TO ALL MODELS

<u>Datum</u> 78.4" forward of wing leading edge (straight wing only).

78.4" forward of inboard intersection of straight and tapered sections (semi-tapered wings).

Leveling Means Two screws left side fuselage below window.

<u>Certification Basis</u>
Type Certificate No. 2A13 issued October 31, 1960.
Date of Application for Type Certificate, February 14, 1958.

Delegation Option Authorization granted per FAR 21, Subpart J, July 17, 1968.

PA-28-140 and PA-28-151: CAR 3 effective May 15, 1956, including Amendments 3-1, 3-2, and 3-4; paragraphs 3.304 and 3.705 of Amendment 3-7 effective May 3, 1962; FAR 23.955 and 23.959 as amended by Amendment 23-7 effective September 14, 1969; and FAR 23.1327 and 23.1547 as amended by Amendment 23-20 effective September 1, 1977.

PA-28-150, PA-28-160, PA-28-180, PA-28-235, PA-28S-160, PA-28S-180, PA-28R-180, and PA-28R-200: CAR 3 effective May 15, 1956, including Amendments 3-1 and 3-2; paragraphs 3.304 and 3.705 of Amendment 3-7 effective May 3, 1962; FAR 23.955 and 23.959 as amended by Amendment 23-7 effective September 14, 1969; and FAR 23.1327 and 23.1547 as amended by Amendment 23-20 effective September 1, 1977.

PA-28-161: CAR 3 effective May 15, 1956, including Amendments 3-1 and 3-2; paragraph 3.387(d) of Amendment 3-4; paragraphs 3.304 and 3.705 of Amendment 3-7 effective May 3, 1962; FAR 23.955 and 23.959 as amended by Amendment 23-7 effective September 14, 1969; FAR 23.1557(c)(1) as amended by Amendment 23-18 effective May 2, 1977; FAR 23.1327 and 23.1547 as amended by Amendment 23-20 effective September 1, 1977; and FAR 36 effective December 1, 1969, through Amendment 36-4.

PA-28-181: CAR 3 effective May 15, 1956, including Amendments 3-2 and 3-4; paragraphs 3.304 and 3.705 of Amendment 3-7 effective May 3, 1962; FAR 23.207, 23.221, 23.955 and 23.959 as amended by Amendment 23-7 effective September 14, 1969; FAR 23.1557(c)(1) as amended by Amendment 23-18 effective May 2, 1977; and FAR 23.1327 and 23.1547 as amended by Amendment 23-20 effective September 1, 1977. FAR 36, Appendix G, Amendment 36-16 for the PA-28-181 (Archer III), S/N 2890206 through 2890231, and 2843001 and up.

PA-28R-201: CAR 3 effective May 15, 1956, including Amendments 3-1 and 3-2; paragraphs 3.304 and 3.705 of Amendment 3-7 effective May 3, 1962; FAR 23.965 of FAR 23 effective February 1, 1965; FAR 23.221, 23.955, 23.959, and 23.1091 as amended by Amendment 23-7 effective September 14, 1969; FAR 23.967(e)(2) as amended by Amendment 23-14 effective December 20, 1973; FAR 23.1093 as amended by Amendment 23-15 effective October 31, 1974; FAR 23.1327 and 23.1547 as amended by Amendment 23-20 effective September 1, 1977; and FAR 36 effective December 1, 1969, through Amendment 36-4 (no acoustical change).

PA-28R-201T: CAR 3 effective May 15, 1956, through Amendment 3-2 including paragraphs 3.304 and 3.705 of Amendment 3-7 effective May 3, 1962; FAR 23.965 of FAR 23 effective February 1, 1965; FAR 23.221, 23.901, 23.909, 23.955, 23.959, 23.1041, 23.1043, 23.1047, 23.1143, and 23.1527 as amended by Amendment 23-7 effective September 14, 1969; FAR 23.1441 as amended by Amendment 23-9 effective June 17, 1970; FAR 23.967(e)(2) as amended by Amendment 23-14 effective December 20, 1973; FAR 23.1305 as amended by Amendment 23-15 effective October 31, 1974; FAR 23.1327 and 23.1547 as amended by Amendment 23-20 effective September 1, 1977; and FAR 36 effective December 1, 1969, through Amendment 36-4.

Page 35 of 42 2A13

PA-28-236: CAR 3 effective May 15, 1956, through Amendment 3-2; paragraphs 3.304 and 3.705 of Amendment 3-7 effective May 3, 1962; FAR23.221, 23.955, 23.959 and 23.1091 as amended by Amendment 23-7 effective September 14, 1969; FAR 23.1093 as amended by Amendment 23-17 effective February 1, 1977; FAR 23.1557(c)(1) as amended by Amendment 23-18 effective May 2, 1977; FAR 23.1327 and 23.1547 as amended by Amendment 23-20 effective September 1, 1977; FAR 23.1581(b)(2) as amended by Amendment 23-21 effective March 1, 1978; and applicable portions of FAR 36, as amended by Amendment 36-9 effective April 3, 1978.

PA-28RT-201: CAR 3, effective May 15, 1956, through Amendment 3-2; paragraphs 3.304 and 3.705 of Amendment 3-7 effective May 3, 1962; FAR 23.965 of FAR 23 effective February 1, 1965; FAR 23.207, 23.221, 23.955, 23.959, and 23.1091 as amended by Amendment 23-7 effective September 14, 1969; FAR 23.201, 23.203, 23.427(c), and 23.967(e)(2) as amended by Amendment 23-14 effective December 20, 1973; FAR 23.1093 as amended by Amendment 23-15 effective October 31, 1974; FAR 23.1557(c)(1) as amended by Amendment 23-18 effective May 2, 1977; FAR 23.1327 and 23.1547 as amended by Amendment 23-20 effective September 1, 1977; FAR 23.1581(b)(2) as amended by Amendment 23-21 effective March 1, 1978; and applicable portions of FAR 36 as amended by Amendment 36-10 effective July 31, 1978.

PA-28RT-201T: CAR 3 effective May 15, 1956, through Amendment 3-2; paragraphs 3.304 and 3.705 of Amendment 3-7 effective May 3, 1962; FAR 23.207, 23.221, 23.901, 23.909, 23.955, 23.959, 23.1041, 23.1043, 23.1047, 23.1091, 23.1143, and 23.1527 as amended by Amendment 23-7 effective September 14, 1969; FAR 23.201, 23.203, 23.427(c), and 23.967(e)(2) as amended by Amendment 23-14 effective December 20, 1973; FAR 23.1093 and 23.1305 as amended by Amendment 23-15 effective October 31, 1974; FAR 23.1557(c)(1) as amended by Amendment 23-18 effective May 2, 1977; FAR 23.1327 and 23.1547 as amended by Amendment 23-20 effective September 1, 1977; FAR 23.1581(b)(2) as amended by Amendment 23-21 effective March 1, 1978; and applicable portions of FAR 36 as amended by Amendment 36-10 effective July 31, 1978.

Compliance with FAR 23.1441 as amended by Amendment 23-9 effective June 17, 1970, will be established with optional oxygen equipment.

PA-28-201T: CAR 3 effective May 15, 1956, through Amendment 3-2; paragraphs 3.304 and 3.705 of Amendment 3-7 effective May 3, 1962; FAR 23.965 of FAR 23 effective February 1, 1965; FAR23.207, 23.221, 23.901, 23.909, 23.955, 23.959, 23.1041, 23.1043, 23.1047, 23.1091, and 23.1527 as amended by Amendment 23-7 effective September 14, 1969; FAR 23.201 and 23.203 as amended by Amendment 23-14 effective December 20, 1973; FAR 23.1305 as amended by Amendment 23-15 effective October 31, 1974; FAR 23.1093 and 23.1143 as amended by Amendment 23-17 effective February 1, 1977; FAR 23.1557(c)(1) as amended by Amendment 23-18 effective May 2, 1977; FAR 23.1327 and 23.1547 as amended by Amendment 23-20 effective September 1, 1977; FAR 23.1581(b)(2) as amended by Amendment 23-21 effective March 1, 1978; and applicable portions of FAR 36 as amended by Amendment 36-10 effective July 31, 1978.

Compliance with FAR23.1441 as amended by Amendment 23-9 effective June 17, 1970, will be established with optional oxygen equipment.

Equivalent Safety Finding: CAR 3.757 for Models PA-28-161, PA-28R-201, PA-28R-201T, PA-28R-236, PA-28RT-201, PA-28RT-201T, and PA-28-201T only.

Production Certificate No. 206 issued and the manufacturer authorized to issue airworthiness certificates under the delegation option provisions of FAR 21.

The basic required equipment as prescribed in the applicable airworthiness regulation (see Certification Basis) must be installed in the aircraft for certification. In addition, the following documents are required:

Production Basis

Equipment

2A13 Page 36 of 42

MODEL PA-28-140	AFM/POH AFM	REPORT NO. VB-160	<u>APPROVED</u> 2/14/64	<u>SERIAL EFFECTIVITY</u> 28-20001 through 28-26946, and 28- 7125001
				through 28-7125641
	AFM	VB-339	7/21/71	28-7225001 through 28-7325674
	AFM	VB-557	5/14/73	28-7425001 through 28-7625275
	РОН	VB-770	6/16/76	28-7725001 through 28-7725290
				Ç
PA-28-150	AFM	VB-166	6/2/61	28-1 through 28-4377
PA-28-151	AFM	VB-573	7/25/73	28-7415001 through 28-7615435
	POH	VB-780	6/18/80	28-7715001 through 28-7715314
PA-28-160	AFM	VB-168	10/25/60	28-1 through 28-4377, and 28-1760A
PA-28S-160	AFM	VB-177	2/25/63	28-1 through 28-1760, and 28-1760A
PA-28-161	РОН	VB-880	12/16/76	28-7716001 through 28-8216300
171-20-101	POH	VB-1180	7/1/82	28-8316001 through 28-8616057, and
	1011	VB 1100	77 17 02	2816001 through 2816119
	POH	VB-1610	7/12/95	2842001 and up
	POH Supp.	VB-1546	6/30/92	28-8316001 through 28-8616057, and
				2816001 through 2816119 (See NOTE 28)
	POH	VB-1360	9/9/88	2841001 through 2841365
	POH Supp.	VB-1545	5/29/92	2841001 through 2841365 (See NOTE 28)
	POH	VB-1565	7/1/94	2816110 through 2816119
DA 20 100	ATM	VD 162	9/2/62	20 (71 4 1 20 5(00
PA-28-180	AFM	VB-163	8/3/62	28-671 through 28-5600
	AFM	VB-210	4/22/69	28-5601 through 28-5859, and 28-
	AFM	VD 255	9/1/71	7105001 through 28-7205091
	AFM AFM	VB-355 VB-437	5/22/72	28-7205092 through 28-7205318 28-7305001 through 28-7305601
	AITVI	V D-437	31 221 1 2	and 28-E13
	AFM	VB-558	5/14/73	28-7405001 through 28-7505260
	7 11 111	VB 330	3/11/73	20 / 103001 till oagil 20 /303200
PA-28S-180	AFM	VB-179	5/10/63	28-671 through 28-5859, and
				28-7105001 through 28-7105234
PA-28-181	РОН	VB-760	8/15/75	28-7690001 through 28-7690467
	POH	VB-790	6/18/76	28-7790001 through 28-7990589
	POH	VB-1120	7/2/79	28-8090001 through 28-8690056,
				28-8690061, 28-8690062, and
				2890001 through 2890205
		VB-1611	7/12/95	2843001 and up
	РОН	VB-1563	8/19/94	2890206 through 2890231
PA-28R-180	AFM	VB-173	6/8/67	28R-30001 through 28R-31270, and
I A-26K-160	AITVI	VD-175	0/ 8/ 0 /	28R-7130001 through 28R-7130013
				2010 / 130001 tillough 2010 / 130013
PA-28R-200	AFM	VB-175	1/9/69	28R-35001 through 28R-35820, and
				28R-7135001 through 28R-7135229
	AFM	VB-343	10/14/71	28R-7235001 through 28R-7335446
	AFM	VB-560	5/14/73	28R-7435001 through 28R-7635545
PA-28R-201	РОН	VB-870	12/21/76	28R-7737001 through 28R-7837317
1 A-2010-201	POH	VB-870 VB-1365	9/15/88	288-7/3/001 through 28R-783/317 2837001 through 2837061
	POH	VB-1505 VB-1612	7/12/95	2844001 and up
	1 011	1012	1112173	20 1-1001 and ap

Page 37 of 42 2A13

(C	Continued)	A EM/DOH	DEDODT NO	ADDDOLVED	CERIAL EFFECTIVITY
	<u>MODEL</u> PA-28R-201T	AFM/POH POH	<u>REPORT NO.</u> VB-800	<u>APPROVED</u> 12/20/76	<u>SERIAL EFFECTIVITY</u> 28R-7703001 through 28R-7803374
	174-20K-2011	РОН	VB-1370	11/9/89	2803001 through 2803012
	PA-28-235	AFM	VB-170	7/15/63	28-10001 through 28-11378, and 28-7110001 through 28-7210023
		AFM Supp.	VB-357	8/25/71	28-10001 through 28-11378, and 28-7110001 through 28-7110023
		AFM	VB-442	6/9/72	28-7310001 through 28-7310176 and 28-E11
		AFM	VB-559	5/14/73	28-7410001 through 28-7610202
		РОН	VB-810	1/21/77	28-7710001 through 28-7710089
I	PA-28-236	AFM	FT-124, App E. OR	6/1/78	28-7911001 through 28-8611008, and 2811001 through 2811050
-		РОН	VB-910	6/1/78	28-7911001 through 28-8611008, and 2811001 through 2811050
	PA-28-236	РОН	VB-1613	7/12/95	2845001 and up
Ī	PA-28RT-201	AFM	FT-121, App C. OR	11/7/78	28R-7918001 through 28R-8218026
-		POH	VB-930	11/30/78	28R-7918001 through 28R-7918267
	PA-28RT-201	РОН	VB-1130	9/14/79	28R-8018001 through 28R-8218026
I	PA-28RT-201T	AFM	FT-130, App E. OR	11/7/78	28R-7931001 through 28R-8631005, and 2831001 through 2831013
		РОН	VB-940	11/30/78	28R-7931001 through 28R-8631005, and 2831001 through 2831013
I	PA-28-201T	AFM	FT-126, App E. OR	12/14/78	28-7921001 through 28-7921095
-			VB-920	1/25/79	28-7921001 through 28-7921095

NOTE 1: Current weight and balance report, including list of equipment included in certification empty weight and loading instructions, when necessary, must be provided for each aircraft at the same time of original certification.

The certificated empty weight and corresponding center of gravity location must include undrainable system oil (not included in the oil capacity) and unusable fuel as noted below.

<u>Unusable Fuel and Oil Quantity</u> Fuel 12.0 lb. at (+103.0)	<u>Applicable Models and Serial Numbers</u> PA-28R-180, PA-28R-200: all Serial Nos. PA-28-180: S/N 28-E13, and 28-7305001 through 28-7505260
Fuel 12.0 lb. at (+103.0)	PA-28-235: S/N 28-E11, and S/N 28-7310001 through 28-7710089
Fuel 12.0 lb. at (+103.0)	PA-28-151: S/N 28-7415001 through 28-7715314
Fuel 2.2 lb. at (+103.0)	PA-28-140, PA-28-150, PA-28-160: all Serial Nos.
Fuel 2.2 lb. at (+103.0)	PA-28-180: S/N 28-03, S/N 28-671 through 28-5859, and 28-7105001 through 28-7205318
Oil 1.8 lb. at (+27.5)	PA-28-140, PA-28-150, PA-28-160, PA-28-180: S/N 28-03, 28-1 through 28-1760, and 28-1760A
Oil 1.8 lb. at (+27.5)	PA-28-151: S/N 28-7415001 through 28-7715314

2A13 Page 38 of 42

Unusable Fuel and Oil Quantity	Applicable Models and Serial Numbers		
Oil 1.8 lb. at (+40.5)	PA-28-150, PA-28-160: S/N 28-1761 through 28-4377		
	PA-28-180: S/N 28-1761 through 28-5859, and 28-7105001 through 28-7205318		
	28-7203318		
Oil 1.8 lb. at (+35.5)	PA-28-180: S/N 28-E13, 28-7305001 through 28-7505260		
Oil 1.8 lb. at (+36.5)	PA-28R-180: all Serial Nos.		
Oil 3.9 lb. at (+35.6)	PA-28R-200: S/N 28R-35001 through 28R-35820, and 28R-7135001 through 28R-7135229		
Fuel 2.3 lb. at (+103.0)	PA-28-235: S/N 28-10001 through 28-11378, and 28-7110001		
Oil 2.4 lb. at (+41.0)	through 28-7210023		
Oil 2.4 lb. at (+36.0)	PA-28-235: S/N 28-E11, and 28-7310001 through 28-7710089		
Oil 3.9 lb. at (+30.6)	PA-28R-200: S/N 28R-7235001 through 28R-7635545		
Oil 1.8 lb. at (+35.5)	PA-28-181: S/N 28-7690001 through 28-8690056,		
Fuel 12.0 lb. at (+103.0)	28-8690061, 28-8690062, and 2890001 through 2890231		
Fuel 30.0 lb. at (+103.0)	PA-28R-201: S/N 28R-7737001 through 28R-7837317, 2837001		
Oil 3.9 lb. at (+30.6)	through 2837061, and 2844001 and up		
Fuel 30.0 lb. at (+103.0)	PA-28R-201T: S/N 28R-7703001 through 28R-7803369, 2831001 through 2831013		
Oil 6.0 lb. at (+19.1)	PA-28-161 Cadet: S/N 2841001 through 2841365		
011 010 101 u t (+1)11)	111 20 101 Cadon 8/11 20 11001 amough 20 11000		
Fuel 12.0 lb. at (+103.0)	PA-28-161: S/N 28-7716001 through 28-8616057, and		
Oil 1.8 lb. at (+27.5)	2816001 through 2816119		
Fuel 30.0 lb. at (+103.0)	PA-28-236: S/N 28-7911001 through 28-8611008,		
Oil 5.2 lb. at (+36.0)	2811001 through 2811050, and 2845001 and up		
011 01 2 101 at (12 010)	zorroor anough zorroes, and zo lesser and up		
Fuel 30.0 lb. at (+103.0)	PA-28RT-201: S/N 28R-7918001 through 28R-8218026		
Oil 3.9 lb. at (+30.6)			
Fuel 30.0 lb. at (+103.0)	PA-28RT-201T: S/N 28R-7931001 through 28R-8631005,		
Oil 6.0 lb. at (+19.1)	2831001 through 2831013		
	· ·		
Fuel 30.0 lb. at (+103.0)	PA-28-201T: S/N 28-7921001 through 28-7921095		
Oil 6.0 lb. at (+19.1)			

NOTE 2 The following placards must be displayed in clear view of the pilot:

In Normal Category Aircraft

"THIS AIRPLANE MUST BE OPERATED AS A NORMAL CATEGORY AIRPLANE IN COMPLIANCE WITH OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS, AND MANUAL."

In aircraft certificated in both Normal and Utility Categories

"THIS AIRPLANE MAY BE OPERATED AS A NORMAL OR UTILITY CATEGORY AIRPLANE IN COMPLIANCE WITH OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS, AND MANUAL."

Reference AFM for additional required placards.

Page 39 of 42 2A13

NOTE 3 The Models PA-28-160 and PA-28-180, S/N 28-508 to 28-1760, and 28-1760A may be converted to the seaplane configuration, PA-28S-160 and PA-28S-180, in accordance with Piper Drawing No. 62008.

The Model PA-28-180, S/N 28-1761 through 28-5859, and 28-7105001 through 28-7205318, may be converted to the seaplane configuration, PA-28S-180, in accordance with Piper Drawing No. 65680.

NOTE 4 Takeoff r.p.m. for Models PA-28-180 and PA-28S-180, S/N 28-671 through 28-1760, and 28-1760A, restricted due to fuel flow capability of the emergency pump.

NOTE 5

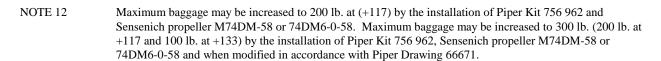
The Models PA-28-150, PA-28-160, PA-28-180; S/N 28-03, 28-1 through 28-5859, and 28-7105001 through 28-7205318 and PA-28-235; S/N 28-10001 through 28-11378, and 28-7110001 through 28-7210023, may be operated with the door removed in accordance with the FAA approved Airplane Flight Manual Supplement, Piper Report VB-182, dated September 3, 1963.

The Model PA-28-140 may be operated with the door removed in accordance with the FAA approved Airplane Flight Manual Supplement dated August 12, 1965.

NOTE 6 The Model PA-28-140, 2 PCLM (Normal Category Only), S/N 28-20001 through 28-20939 may be converted:

- (a) To a maximum weight of 2150 lb. by the installation of Piper Kit 756 962 and Sensenich propeller M74DM58.
- (b) To the four place, 4 PCLM (See Item VIII), configuration in accordance with Piper Drawing 65599.
- NOTE 7 The Model PA-28-140, 2 PCLM, S/N 28-20940 through 28-26946, and 28-7125001 through 28-7725290, may be converted to the four place, 4 PCLM (See Item VIII), configuration by the installation of Piper Kit 756 941 and appropriate seats.
- NOTE 8 The maximum cargo allowable of 125 lb. for S/N 28-1 through 28-1760, and 28-1760A may be increased to 200 lb. in accordance with Piper Service Spares Letter No. 242.
- NOTE 9 The Model PA-28-180 (Normal Category), S/N 28-671 through 28-3832, may be operated in Utility Category in accordance with Service Spares Letter No. 258.
- NOTE 10 All PA-28 models with Lycoming O-360-A3A engine and Sensenich propeller Model M76EMM-0, M76EMMS-0, 76EM8S5-0, or 76EM8-0 must avoid continuous operation between 2150 and 2350 r.p.m. Placards must be installed in accordance with Piper Service Letter No. 526, and Airplane Flight Manual Supplement No. 1, dated April 22, 1969.
- NOTE 11 The Models PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28-180; S/N 28-03, 28-1 through 28-5859, and 28-7105001 through 28-7205318; PA-28R-180 and PA-28R-200 may be operated with the spinner dome removed, or with the spinner dome and rear bulkhead removed. The PA-28-151, S/N 28-7415001 through 28-7715314, may be operated with the spinner dome removed, or with the spinner dome and front and rear bulkheads removed. The PA-28-180, S/N 28-7305001 through 28-7505260, and the PA-28-181; S/N 28-7690001 through 28-8690062, and 2890001 through 2890205, may be operated with the spinner dome removed. The PA-28R-201; S/N 28R-7737002 through 28R-7837317, 2837001 through 2837061, and 2844001 and up, may be operated with the spinner dome removed. The PA-28R-201T; S/N 28R-7703001 through 28R-7803374, and 2803001 through 2803012, may be operated with the spinner dome removed. The PA-28-161, S/N 28-7716001 through 28-8216300 may be operated with the spinner dome and front and rear bulkheads removed. The PA-28-161; S/N 28-8316001 through 28-8616057, 2816001 through 2816119, and PA-28-161 (Cadet), S/N 2841001 through 2841365, may be operated with the spinner dome removed, or with the spinner dome and front and rear bulkheads removed. The PA-28-236; S/N 28-7911001 through 28-8611008, 2811001 through 2811050, and 2845001 and up, may be operated with the spinner dome removed. The PA-28RT-201, S/N 28R-7918001 through 28R-8218026, may be operated with the spinner dome removed. The PA-28RT-201T; S/N 28R-7931001 through 28R-8631005, and 2831001 through 2831013, may be operated with the spinner dome removed. The PA-28-201T, S/N 28-7921001 through 28-7921095, may be operated with the spinner dome removed.

2A13 Page 40 of 42



- NOTE 13 Maximum baggage may be increased to 300 lb. (200 lb. at +117 and 100 lb. at +133) when modified in accordance with Piper Drawing 66671.
- NOTE 14 The Model PA-28-235; S/N 28-10001 through 28-11378, and 28-7110001 through 28-7210023, may be operated with the spinner dome removed, or with the spinner dome and rear bulkhead removed on the constant speed propeller installation only.
- NOTE 15 The Model PA-28-180, S/N 28-671 through 28-5859, may be operated to the expanded C.G. envelope:
 - (a) For S/N 28-671 through 28-3072 by the installation of P/N 65280-00 tube Landing Gear Strut Piston in accordance with Piper Service Letter 567 and in accordance with FAA approved Airplane Flight Manual Supplement No. 2, dated September 14, 1970, for Model PA-28-180 (Piper Report VB-261).
 - (b) For S/N 28-3073 through 28-5859 in accordance with FAA approved Airplane Flight Manual Supplement No. 2, dated September 14, 1970, for Model PA-28-180 (Piper Report VB-261).
- NOTE 16 The Model PA-28-235, S/N 28-10001 through 28-11378, may be operated to the expanded C.G. envelope in accordance with FAA approved Airplane Flight Manual Supplement No. 1, dated September 14, 1970, for Model PA-28-235 (Piper Report VB-274).
- NOTE 17 The following serial numbered aircraft are not eligible for import certification to the U.S.: 28-5035, 28-5047, 28-5178, 28-5262, 28-5397, 28-5435, 28-11077, 28-11101, 28-11140, 28-11180, 28-11200, 28-11212, 28-11227, 28-11254, 28-11255, 28-24660, 28-24701, 28R-30861, 28R-30952, 28R-30972, 28R-31043, and 28R-31091. These aircraft have identification plates stamped "Ensemblado en Colombia."
- NOTE 18 Two propeller flange bushings must be replaced with Lycoming #72068S bushings at propeller blade positions corresponding to noncounterbored bolt holes in order to use the McCauley propeller.
- NOTE 19 Two propeller flange bushings must be replaced with Lycoming #72060S index bushing and Lycoming #721061S bushing, at flange index mark and opposite, in order to use the McCauley propellers. A spacer, Piper P/N 79528-0, is also required between propeller and engine flange.
- NOTE 20 The following model and serial number aircraft are not eligible for import certification to the U.S.: PA-28-140:

 $28-24660,\ 28-24701,\ 28-7225490,\ 28-7225491,\ 28-7225492,\ 28-7225493,\ 28-7225494,\ 28-7225495,\ 28-7225496,\ 28-7225497,\ 28-7225498,\ 28-7225499,\ 28-7325378,\ 28-7325371,\ 28-7325372,\ 28-7325373,\ 28-7325374,\ 28-7325375,\ 28-7325376,\ 28-7325555,\ 28-7325555,\ 28-7325556,\ 28-7325557,\ 28-7325558,\ 28-7325580,\ 28-7325580,\ 28-7325581,\ 28-7325599,\ 28-7325600,\ 28-7425217,\ 28-7425222,\ 28-7425224,\ 28-7425271,\ 28-7425272,\ 28-7425273,\ 28-7425274,\ 28-7425275,\ 28-7425276,\ 28-7425277,\ 28-7425278,\ 28-7425304,\ 28-7425304,\ 28-7425305,\ 28-7425306,\ 28-7425307,\ 28-7425344,\ 28-7425383,\ 28-7425384,\ 28-7525142,\ 28-7525144,\ 28-7525177,\ 28-7525180,\ 28-7525230,\ 28-7525238,\ 28-7525243,\ 28-7525244,\ 28-7525246,\ 28-7525247,\ 28-7625060,\ 28-7625061,\ 28-7625130,\ 28-7625144,\ 28-7625272,\ 28-7625273,\ 28-7625274,\ 28-7625275,\ 28-7725053,\ and\ 28-7725188.$

PA-28-161:

28-7816330, 28-7916235, 28-8016266, 28-8116157, 28-8116158, 28-8316031, 28-8316032, 28-8616006, 28-8616007, 2816006, 2816020, 2816021, and 2816022.

PA-28-180:

28-5047, 28-5178, 28-5262, 28-5397, 28-5435, 28-7305315, 28-7305316, 28-7305499, 28-7405136, 28-7405137, 28-7405138, 28-7405139, 28-7405158, 28-7405160, 28-7405161, 28-7405167, 28-7405184, 28-7405185, 28-7405186, 28-7405187, 28-7405223, 28-7505138, 28-7505148, 28-7505159, 28-7505168, 28-7505169, 28-7505179, 28-7505189, and 28-7505260.

Page 41 of 42 2A13

NOTE 20 PA-28-181:

(cont.)

 $\begin{array}{c} 28-7690362, 28-7790343, 28-7790344, 28-7790388, 28-7790533, 28-7790571, 28-7790605, 28-7890060, \\ 28-7890185, 28-7890290, 28-7890351, 28-7890352, 28-7890406, 28-7890407, 28-7890463, 28-7890464, \\ 28-7890465, 28-7890466, 28-7890480, 28-7890481, 28-7890507, 28-7890508, 28-7890509, 28-7890510, \\ 28-7890534, 28-7890550, 28-7890551, 28-7990158, 28-7990251, 28-8090203, 28-8090243, 28-8090274, \\ 28-8090349, 28-8190032, 28-8190098, 28-8190099, 28-8190174, 28-8190175, 28-8190200, 28-8190201, \\ 28-8190261, 28-8190262, 28-8190317, 28-8190318, 28-8290020, 28-8290021, 28-8290022, 28-8290122, \\ 28-8290123, 28-8290124, 28-8290125, 28-8290146, 28-8290147, 28-8290148, 28-8290149, 28-8390031, \\ 28-8390032, 28-8390057, 28-8390058, 28-8390059, 28-8390060, 28-8690061, 28-8690062, 2890035, and \\ 2890036. \end{array}$

PA-28-201T:

28-7921085

PA-28-235:

28-11077, 28-11101, 28-11140, 28-11180, 28-11200, 28-11212, 28-11227, 28-11254, 28-11255, 28-11370, 28-11371, 28-11372, 28-11373, 28-7310074, 28-7310152, 28-7310153, 28-7310172, 28-7410074, 28-7410078, 28-7410089, 28-7410090, 28-7510072, 28-7510073, 28-7610087, 28-7610168, 28-7710033, 28-7710068, and 28-7710089.

PA-28-236:

 $28-7911027, 28-7911028, 28-7911029, 28-7911030, 28-7911136, 28-7911219, 28-7911220, 28-7911221, \\28-7911252, 28-8011020, 28-8011021, 28-8011062, 28-8011092, 28-8011093, 28-8011094, 28-8011107, \\28-8111030, 28-8111038, 28-8111058, 28-8111068, 28-8111069, 28-8111070, 28-8111095, 28-8411021, \\28-8411022, 28-8411023, 28-8411024, 28-8411026, 28-8411027, 28-8411028, and 28-8411029.$

PA-28R-180:

28R-31091

PA-28R-200:

28R-7335201, 28R-7335202, 28R-7335326, 28R-7335328, 28R-7335377, 28R-7335387, 28R-7335395, 28R-7335397, 28-7435214, 28-7435229, 28-7435252, 28-7435253, 28R-7535146, 28R-7535149, 28R-7535167, 28R-7535168, 28R-7535214, 28R-7535217, and 28R-7635377.

PA-28R-201:

28R-7737119, 28R-7837076, 28R-7837148, 28R-7837149, 28R-7837188, 28R-7837189, 28R-7837225, 28R-7837226, 28R-7837248, 28R-7837249, 28R-7837273, 28R-7837274, 28R-7837294, 28R-7837316, and 28R-7837317.

PA-28R-201T:

28R-7703169, 28R-7703132, 28R-7703184, 28R-7703185, 28R-7703285, 28R-7703382, 28R-7803064, 28R-7803156, 28R-7803207, 28R-7803208, 28R-7803251, 28R-7803291, 28R-7803292, 28R-7803293, 28R-7803294, 28R-7803295, 28R-7803299, 28R-7803300, 28R-7803317, 28R-7803318, 28R-7803319, 28R-7803320, 28R-7803344, 28R-7803360, 28R-7803361, 28R-7803370, 28R-7803371, 28R-7803372, and 28R-7803373.

PA-28RT-201:

28R-8118029, 28R-8118054, 28R-8118078, 28R-8218015, and 28R-8218016.

PA-28RT-201T:

28R-7931122, 28R-7931205, 28R-7931206, 28R-7931262, 28R-7931296, 28R-7931297, 28R-8031062, 28R-8131029, 28R-8131083, and 28R-8131183.

In addition, aircraft having the following serial number are not eligible for import certification to the U.S.:

AR28-7325376, AR28-7325377, AR28-7325378, AR28-7325379, AR28-7325374, AR28-7325375, AR28-7325376, AR28-7325377, AR28-7325378, AR28-7325379, AR28-7305315, AR28-7305316, AR28-7335201, AR28-7335202, AR28-7325508, AR28-7325516, AR28-7325525, AR28-7325526, AR28-7310152, AR28-7310153, AR28-7325555, AR28-7325556, AR28-732557, AR28-732558, AR28-7305480, AR28-7305499, AR28-7335326, AR28-7335328, AR28-7325580, AR28-7325599, AR28-7325600, AR28-7335395, and AR28-7335397.

- NOTE 21 Engines with serial numbers ending with "A" require the F-4-13 propeller governor assembly. Other engines require the F-4-3() propeller governor assembly.
- NOTE 22 Hartzell Propeller HC-C2YK-1()/7666A-2 or HC-C2YK-1()F/F7666A-2 approved with IO-360-C1C engine only (S/N 28R-7235001 through S/N 28R-7635516).

2A13 Page 42 of 42

NOTE 23 McCauley Propeller B2D34C213/90DHA-16 approved with IO-360-C1C6 engine only (S/N 28R-7635517 through 28R-7635545).

NOTE 24 On Models PA-28-161; S/N 28-7816001 through 28-8616057, and S/N 2816001 through 2816109, and PA-28-181; S/N 28-7890001 through 28-8690056, 28-8690061, 28-8690062, 2890001 through 2890231, and 2843001 and up, the wheel fairings but not the landing gear strut fairings may be removed. If the wheel fairings are removed, the rudder centering springs must also be removed. This NOTE does not apply to the PA-28-161 (Cadet); S/N 2841001 through 2841365, or the PA-28-161 (Warrior III); S/N 2816110 through 2816119, and 2842001 and up, which are not equipped with wheel fairings.

On Models PA-28-201T; S/N 28-7921001 through 28-7921095, and PA-28-236; S/N 28-7911001 through 28-8611008, 2811001 through 2811050, and 2845001 and up, the wheel fairings alone or the wheel fairings but not the landing gear strut fairings may be removed.

NOTE 26 With installation of Piper Kit 88050, PA-28-161 2325 lb. Maximum Gross Weight Modification, the following weights apply:

Normal Category: Ramp - 2332 lb.

NOTE 25

NOTE 28

Takeoff - 2325 lb.

Utility Category: Ramp - 2027 lb.

Takeoff - 2020 lb.

(See POH VB-1180 Supplement dated October 5, 1985.)

NOTE 27 With installation of Piper Kit 88168, PA-28-161 Cadet 2202 lb. Maximum Gross Weight Modification, the following weights apply:

Normal Category: Ramp - 2209 lb.

Takeoff - 2202 lb.

Utility Category: Ramp - 2027 lb.

Takeoff - 2020 lb.

(See POH VB-1410 dated March 14, 1990.)

POH Supplement VB-1546 is applicable to POH VB-1180. POH Supplement VB-1545 is applicable to POH VB-1360. Supplements VB-1545 and VB-1546 restrict maximum r.p.m. limitation to 2600 r.p.m. for foreign countries requiring reduced noise level operation (Piper Kit No. 766 277 for PA-28-161 (Cadet) and Piper Kit No. 766 278 for PA-28-161 (Warrior II)).